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# EIGHTH ANNUAL REPORT

OF THE

# STATE BOARD OF HEALTH,

OF THE

# STATE OF RHODE ISLAND,

FOR THE YEAR ENDING DECEMBER 31, 1885,

AND INCLUDING THE REPORT UPON

## BIRTHS, MARRIAGES AND DEATHS IN 1884.

PROVIDENCE:
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1886.

# MEMBERS

OF THE

# RHODE ISLAND STATE BOARD OF HEALTH.

**December 31, 1885.**

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| | P. O. Address. |
|---|---|
| HENRY E. TURNER, M. D., *Chairman* | Newport. |
| HENRY W. ROSE, M. D | Westerly. |
| ALBERT G. SPRAGUE, M. D | River Point. |
| GEORGE W. JENCKES, M. D | Woonsocket. |
| THOMAS H. SHIPMAN, M. D | Bristol. |
| SAMUEL M. GRAY, C. E | Providence. |
| CHARLES H. FISHER, M. D., *ex-officio and Secretary* | Providence. |

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  - Cattle Commission.
  - Manual for Health Officers.
- Index.

91947

*To the Honorable the General Assembly of the State of Rhode Island:*

Herewith is respectfully presented the Eighth Annual Report of the State Board of Health, in compliance with Section 9, Chapter 83, of the Public Statutes.

The Report is for the year ending December 31, 1885, and will present a general account of the work of the Secretary, under the advice and consent of the Board, and is included in the Secretary's report which will be found in the following pages.

The decease during the year of David Smith, the honorable and much respected member from Washington county, occasioned a vacancy which was filled by the appointment of Henry W. Rose, M. D., of Westerly. Dr. A. G. Sprague was reappointed for six years from July 1, 1885. Otherwise than the appointment of Dr. Rose the personel of the Board remains as heretofore.

Very respectfully,

HENRY E. TURNER, *Chairman.*

CHAS. H. FISHER, *Secretary.*

*April 14, 1886.*

# REPORT OF THE SECRETARY.

*Gentlemen of the Board:*

At the different quarterly meetings of the Board held during the year 1885, occasion was taken to report in considerable detail the work performed during each quarter by or under the supervision of the Secretary, and by your direction or consent.

It is quite needless, therefore, that there should at this time be given an account of labor with such attention to details as heretofore at the regular meetings of the Board. This will be especially proper as regards nuisances and work in the Cattle Commission department.

There will be found included in the printed report some of the circulars of which you had previous knowledge, and which were sent to physicians, town clerks, and other town authorities, and the replies received thereto, in relation to the prevalence of diseases and the kinds of disease; the improvements made, the precautions taken, the sanitary work of all kinds performed, for the prevention of disease and the general promotion of the public health.

Early in the year 1885, the Secretary prepared a circular entitled "Suggestions in relation to Asiatic Cholera," which was designed to call the attention of the civil authorities and the citizens of the State to the dangers by which they were menaced, should the cholera in an epidemic form invade the States of America as then seemed probable, and be transmitted in some one of the scores of modes of conveyance and be introduced into Rhode Island communities. The object was quite fully accomplished.

It was distributed to members of the General Assembly at the January Session at the same time that two bills in relation to nuisances were introduced, one of them framed by the Secretary, and providing among other sanitary requirements for the appointment of health officers in every town. The passage of a substitute bill, containing some of the main features of the two, was facilitated as by general assent, by the influence of the suggestions presented in the circular.

The law is much less effective than it would otherwise have been, in the opinion of the Secretary, if there had been retention of the sections in the health officer bill which gave health officers additional powers, and defined their duties under their larger and still rather limited powers. It is a matter of congratulation, however, that so much has been obtained for the public benefit.

### PROTECTION FROM INFECTIOUS DISEASES.

The outlook for the protection of the States of this Union from an invasion of cholera and other infectious diseases during the summer of 1886, has a promise of great efficiency.

In our own State, the sanitary work done during 1885 in the cities and compact localities of the towns, will render the conditions therein less liable to foster and promote the spread of the cholera, if unfortunately an invasion of that disease should occur; and in case of such invasion, the appointment of health officers, (now made mandatory upon the town councils by statute law,) who can act immediately with such advice and assistance as may be required in the restriction and suppression of the same, will provide against any probable large prevalence in whatever locality it may occur.

It may be said of the surrounding States, and also of many of the States of the Union, and especially of a large number of the most important cities in the different States, that the sanitary improvements commenced or completed during 1885, were not only unprecedented, but were many times greater in number and efficiency than during any previous year.

On the part of the General Government, the ministers, consuls and commercial agents, established in the various countries and cities of the world, with whom the citizens of the United States have commercial relations, are required to give notice to the General Government of the prevalence of fatal infectious or contagious diseases, in their several localities, and upon the departure of vessels from any of the infected places bound for any of the ports of the United States, information is required to be transmitted by cable telegraph to the officials at Washington, and by them forwarded to the collectors, or other revenue marine or maritime officials, of the ports of entry to which the vessels may be bound.

The General Government will also receive and transmit notices of the departure of vessels from ports of the United States, where small pox, yellow fever or cholera may exist, to the ports of destination of the said vessels.

In order also to assist local authorities in the maintenance of quarantine against the introduction of infectious diseases, the President has determined to establish, by means of the vessels of the Revenue Marine, a national patrol of the coast of the United States, so far as it may be practicable under existing law and consistent with the performance of the other duties confided to that service.

The following order is given the commanders of the Revenue Marine Service:

"You are directed to cruise, actively, with the Revenue-Steamer..... ....... under your command, upon the outer lines of your cruising-grounds, and to exercise especial vigilance in speaking all vessels arriving from foreign ports, or from southern ports of the United States, directing your inquiries, first, as to the port from which the vessel sailed, and secondly, as to the health of those on board at the time of departure, during passage, and at the time of hailing; and should the information gained indicate a condition of contagion or infection in the vessel or crew, or that the vessel has left a port at which contagious or infectious diseases were prevailing, her master will be directed to proceed for examination to the outer quarantine station provided for her port of destination.

"The following regulations will be observed relative to the inspection of vessels:

"If a vessel be found with sickness on board, or in a foul condition, she will be directed to proceed to the quarantine station hereinbefore indicated, and the revenue-marine officer will immediately notify the proper quarantine officer. In such case no person will be permitted to board the vessel until the medical officers in charge of the quarantine shall have given the usual permit.

"Should the pilot or master of a vessel, when hailed, report cases of recent or present sickness on board, the revenue officer will not board, but will send her immediately to quarantine."

## WATER SUPPLY AND SEWAGE DISPOSAL.

The increasing population of Rhode Island, and especially in the cities and the compact localities of towns, in which the concentration of a larger population within the same area is constantly going on, makes the question of sewage disposal one of the most important that engages the attention of the sanitarian. The different methods of removal heretofore adopted, have all of them more or less of disadvantages, and no one of them can be made use of by all localities with equal advantage.

The methods of disposal by water carriage or sewerage proper, in such manner as to be most effectual and at the same time where irrigation is unavailable, avoid in the largest measure the pollution of the streams of water which receive the sewage, are receiving at this time great attention, an attention commensurate with the importance of the questions at issue.

The Reports of the Water Commissioners, the civil and sanitary engineers and other sanitary officials of the cities of Newport, Pawtucket and Providence, extracts from which will be found in this Report, will show to what extent the important questions of sewage disposal are demanding attention in those localities, and the suggestions they present will be of value to the citizens of other towns in the State, where the same questions must sooner or later be considered and similar works be established.

In addition to subjects usually reported upon by the Secretary, will be found the Manual of the Laws of Rhode Island relating to public health, and suggestions to Health officers in relation to their duties. It does not happen that every health officer has a copy of the Statutes, and few would have at hand all the schedules of Public Laws passed at the different sessions of the General Assembly since the Statutes were revised. A handy volume containing all the laws of the State appertaining to public health, and advice and direction in regard to the many duties of a health officer, cannot but be of value to that class of officials. The publication in the report will give a wider circulation to the Manual, and as the average citizen has but dim conceptions of the duties of a health officer, the larger the dissemination of the knowledge of such duties, the greater will be the assistance given such officers in the discharge of their duties, and the observation of the neglect of such duties will be the more readily perceived.

# HEALTH OF THE STATE, 1885.

## REPORTS OF PREVALENT ACUTE DISEASES.

According to the reports received from competent physicians, whose united circuits of labor cover the entire territory of the State, the epidemic or even large prevalence of acute contagious or infectious diseases, during 1885, have been restricted to very few localities. For two years the State has been unusually exempt from extensive prevalence of those epidemic contagious diseases that are largely fatal in their usual forms.

Zymotic diseases of frequent occurrence have had sporadic prevalence in a mild form in a considerable number of towns, and in a few towns have occurred in larger numbers and in a more virulent form. The following will give an account of the most prominent of such as have prevailed during 1885 :

### CROUP.

In no town in the State has croup had an unusual prevalence, except in East Providence. From Burrillville, Glocester and New Shoreham, come reports of no cases known. In about one-fifth of the towns there was a moderate prevalence, and throughout the rest of the State the cases were only occasional and rare.

In the Seventh Annual Report, an account was given of the mortality from croup in Rhode Island, for twenty-four years, in three periods of eight years each. In regard to the proportion of the mortality from croup to the population during each period, the results of the investigation showed that during the first period there were about four deaths in every ten thousand of the living population ; in the second period, about two and one-half in every ten thousand ; and in the third period, about three and one-quarter in every ten thousand.

In 1884, the mortality from croup was about two and three-quarters deaths in every ten thousand of the population. At the time of this writing, the returns of deaths in the different towns in the State had not all been received, and consequently the whole number of deaths from croup were not known, and the proportion of deaths from croup to the living population could not be computed.

### DIPHTHERIA.

In no locality in the State had diphtheria an epidemic prevalence during 1885. In the spring months, and again in the autumn, there was a considerably large prevalence of diphtheria in East Providence. The fatality was not large. In Bristol, diphtheria prevailed to an unusual extent during the autumnal months; was severe in form and almost reaching epidemic virulence.

There were several deaths from diphtheria in the month of December in one locality in Middletown; the deaths were a large proportion of the cases, which were quite limited in number.

Sporadic cases occurred quite frequently in Coventry during the spring and fall months. The disease was of mild form in that town throughout the whole period of prevalence.

In Providence city and adjoining towns west of the Seekonk river, there were sporadic cases of diphtheria occurring here and there throughout the winter, spring and fall months, mostly of mild type, and in no locality approaching an epidemic prevalence.

Several other towns in the State report a moderate or very small prevalence.

By reference to page 134 of the Thirty-Second Registration Report, it will be found that croup has had a much more uniform prevalence (though lessening apparently in proportion to population) from year to year than diphtheria. It may be difficult at times to distinguish one from the other.

### DIARRHŒAL DISEASES.

Diarrhœal diseases, including cholera infantum, dysentery, etc., were less prevalent in the State at large, during 1885, than in the average of years. In Bristol, Coventry, East Greenwich and West Greenwich, the reports indicated a large prevalence; elsewhere only a moderate or very small prevalence.

Cholera infantum has had a quite varied record during the period of registration in Rhode Island, in regard to mortality therefrom, ranging in the proportion to whole number of deaths from known causes from above ten per cent. in 1872 to less than four per cent. in 1879. The mortality is not an exact index of the number of cases, but affords an estimate of numbers approximate thereto.

### FEVERS, TYPHOID, ETC.

Fevers, not including those of malarial origin, were of quite infrequent occurrence throughout the State during 1885, as compared with ordinary years.

In New Shoreham, there were more than the usual number of cases, which, however, did not reach a large prevalence, the usual number of cases being very small.

In the city of Providence, the number of cases of typhoid fever during the year were estimated as not above 60 per cent. of that of 1884, by physicians whose knowledge of the presence of different diseases in all parts of the city, and in all seasons of the year, is not surpassed by any.

### FEVERS, MALARIAL.

Malarial diseases of protean forms have been largely prevalent in a considerable number of the towns, although not reported as having increased in number in any town over the previous year. There are still a few towns in the State in which the diseases have no local home.

In most of those towns in which malarial diseases appeared in large numbers during 1885, there was less severity of form as a rule, and also a lessened number of cases, as compared with the two or three previous years.

Newport County still continues to be almost entirely exempt from malarial diseases of local origin.

### MEASLES.

Measles were epidemic in a part of Coventry, and in one locality in Burrillville. There was a large prevalence in parts of Tiverton and Little Compton. In sixteen other towns, there was prevalence to a greater or less extent, but not numerous in any, and in the remaining towns no cases were reported.

In the cities of Providence and Pawtucket, measles were prevalent to a moderate extent throughout the year, assuming rather large proportions in some localities, but as a rule appearing in a mild form.

## SCARLATINA.

Scarlatina was epidemic in but one town in the State, i. e., Westerly, during 1885. The epidemic commenced in November, 1884, and rapidly attacked large numbers of children and became exceedingly virulent. During the months of January and February, 1885, it continued, with some abatement of virulence and with gradually diminishing numbers. A considerable number, however, were attacked during March and April, and sporadic cases occurred during the larger part of the year.

Scarlatina had a quite large prevalence in Pawtucket, but in mild form and with small fatality.

In Providence city, it prevailed throughout the year, with lessened frequency during the summer months, and in rather mild form, not, however, reaching at any time such large numbers as in the previous year. It may be said that the State was unusually free from the presence of scarlatina during 1885.

## WHOOPING COUGH.

Whooping cough was epidemic in parts of Burrillville and Glocester, and in Woonsocket.

It was largely prevalent in Coventry, East Providence, Little Compton and North Smithfield. In Providence city, the number of cases did not probably vary much from that of the preceding year, the severity being rather less, if there was any variation.

The following table will show the comparative prevalence of several of the most important acute diseases, as they occurred in the different towns in Rhode Island during the year 1885.

*Comparative prevalence of twelve important diseases during 1885.*

| TOWNS. | Bronchitis. | Cholera Infantum. | Croup. | Diphtheria. | Diarrhœa and Dysentery. | Fever, Typhoid. | Fever, Malarial. | Measles. | Pneumonia. | Rheumatism. | Scarlatina. | Whooping Cough. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Barrington | = | — | — | .. | — | = | + | 0 | = | = | .. | — |
| Bristol | + | — | — | + | + | = | 0 | — | — | = | — | = |
| Warren | = | — | .. | — | = | = | = | 0 | + | = | — | — |
| Coventry | — | .. | = | + | + | .. | — | * | .. | + | — | + |
| East Greenwich | = | + | — | — | + | — | — | 0 | = | = | .. | .. |
| West Greenwich | — | — | — | = | + | — | .. | — | .. | = | .. | — |
| Warwick | = | — | = | = | = | = | = | = | = | + | .. | = |
| Jamestown | = | .. | .. | .. | = | — | 0 | 0 | = | = | .. | 0 |
| Little Compton | + | + | — | 0 | = | = | — | + | + | = | 0 | + |
| Middletown | + | — | — | = | = | — | .. | 0 | = | = | 0 | 0 |
| New Shoreham | = | .. | 0 | — | = | = | 0 | 0 | 0 | = | .. | .. |
| Portsmouth | = | .. | — | = | = | — | .. | .. | = | = | .. | 0 |
| Tiverton | + | = | — | .. | = | = | 0 | + | = | — | 0 | = |
| Newport City | + | — | — | = | = | — | .. | 0 | + | = | — | 0 |
| Burrillville | = | — | 0 | — | — | — | .. | * | = | — | 0 | * |
| Cranston | = | — | = | = | = | = | + | — | + | = | — | .. |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cumberland | = | = | = | .. | — | = | + | 0 | — | = | .. | .. |
| East Providence | = | = | + | + | — | = | — | — | 0 | — | — | + |
| Foster | = | .. | .. | — | = | .. | 0 | — | = | = | 0 | = |
| Glocester | + | 0 | 0 | 0 | — | = | 0 | — | + | = | 0 | * |
| Johnston | = | — | + | + | = | = | + | — | + | = | — | .. |
| Lincoln | = | = | = | .. | = | = | + | 0 | — | = | .. | — |
| North Providence | = | — | — | = | = | = | = | — | + | + | — | .. |
| North Smithfield | = | — | — | — | = | = | — | = | = | — | .. | + |
| Pawtucket | + | = | — | = | — | — | + | + | = | = | + | .. |
| Scituate | — | = | 0 | + | = | = | — | 0 | = | = | 0 | 0 |
| Smithfield | + | — | .. | = | — | — | — | 0 | — | = | .. | .. |
| Woonsocket | = | = | = | = | = | = | + | — | = | — | — | * |
| Providence City | + | = | = | = | = | — | = | = | + | = | = | + |
| Charlestown | + | 0 | .. | — | — | — | = | = | = | = | = | — |
| Exeter | = | — | .. | .. | — | — | 0 | 0 | = | — | .. | .. |
| Hopkinton | = | — | — | — | = | — | — | 0 | = | — | .. | .. |
| North Kingstown | = | = | — | = | = | — | — | .. | — | — | .. | 0 |
| South Kingstown | = | = | — | — | = | — | .. | 0 | = | — | — | .. |
| Richmond | = | — | — | — | = | — | — | 0 | = | = | .. | .. |
| Westerly | = | — | .. | .. | = | = | = | .. | = | = | * | .. |

☞ The signs or characters used in the above Table indicate the degrees of prevalence of the diseases named, as follows: The * indicates an epidemic prevalence; the sign + a large prevalence; the sign = a moderate prevalence; the sign — a small prevalence; the dots a *very* small prevalence; and the 0 no prevalence, according to the returns.

# ANNUAL REPORTS OF MEDICAL CORRESPONDENTS.

The plan of obtaining from the regular medical correspondents of the Board, and other physicians, as in previous years, of a report at the commencement of each year, covering, in a general way, the whole of the preceding year, in relation to the amount of sickness of all kinds, the prevalence of particular diseases, and sanitary conditions and movements in their respective localities, has been continued and the following circular sent therefor as usual.

## OFFICE OF SECRETARY OF THE STATE BOARD OF HEALTH.

### CIRCULAR NO. 29.

PROVIDENCE, Jan. 1, 1886.

The Secretary of the State Board of Health desires to obtain from all respectable physicians in every section of the State an Annual Report covering the whole twelve months preceding the above date.

The following questions will indicate the information sought, and the general plan of such report; but correspondents need not be confined to precise replies to the questions presented, all the freedom being allowable of such modifications and additions as the circumstances or peculiarities of each locality may seem to warrant.

These annual reports are desired for the purpose of presenting the status of the public health and the sanitary sentiment existing in the different sections of the State, during the year 1885, in the Eighth Annual Report of the State Board of Health.

They should be returned to the Secretary of the Board by the second week in February.

Any additional postage stamps needed to cover postage on more extended consideration of the topics suggested, or any other topic having relation to the public health, will be immediately refunded on the receipt of papers.

## QUESTIONS.

1. Name of Physician. M. D.

2. Name of town and circuit.

3. Taking sickness of all kinds, has there been more or less than usual in your circuit during the past year? How much?

4. Which of the following zymotic diseases have prevailed in your circuit during the past year? Please state when sporadic and when epidemic, whether mild, average or severe, and in what months they occurred, and in what localities.

**a.** Cholera Infantum.

**b.** Croup.

**c.** Diarrhœa and Dysentery.

**d.** Diphtheria.

**e.** Fever, Malarial.

**f.** Fever, Typhoid.

**g.** Measles.

**h.** Scarlatina.

**i.** Small Pox.

**j.** Whooping Cough.

5. Any other zymotic diseases becoming epidemic.

Also, please state what degree of prevalence, whether large, average or small, and if above average, in what months was the large occurrence, of the following named diseases. State degree of prevalence and time of occurrence under the headings following :

| | Degree of PREVALENCE. | MONTHS. |
|---|---|---|
| k. Brain, Inflammation and Congestion of | | |
| l. Bronchitis, Acute | | |
| m. Meningitis, Cerebro Spinal | | |
| n. Pneumonia. | | |
| o. Rheumatism. | | |
| p. Stomach, Acute Diseases of | | |

6. What diseases, not classed as zymotics, have had unusually large prevalence during the past year ?

7. What diseases have been attended with unusual fatality ?

8. Have any circumstances occurred within your observation or knowledge that seemed to indicate that Scarlet Fever, Diphtheria or Typhoid Fever had been taken or communicated from one person to another ? A full history of known facts in detail should be given. Such history need not be confined to any particular year. State on separate sheet.

9. Has there been, in your opinion, any advance in public sentiment or views of individuals, in your circuit, in regard to the importance of sanitary surroundings ; or any increased interest in means of preventing diseases ? State what reasons for belief.

Very respectfully,

CHAS. H. FISHER,

*Sec. of State Board of Health.*

The following extract from the Public Statutes, in relation to the duties of town and local boards of health and practicing physicians, was also appended :

### PUBLIC STATUTES, CHAPTER 83.

SEC. 6. The secretary of the said board shall make inquiry from time to time, of the clerks of town and local boards of health and PRACTICING PHYSICIANS, in relation to the prevalence of any disease, or knowledge of any known or generally believed source of disease, or causes of general ill health, and also in relation to the proceedings of the said boards of health, in respect to acts for the promotion and protection of the public health, and also in relation to diseases among domestic animals in their several towns and localities respectively, and the said clerks of town and local boards of health, and the said PRACTICING PHYSICIANS, shall give such information, in reply to said inquiries, of such facts and circumstances as shall have come to their knowledge.

## IN REPLY TO CIRCULAR NO. 29.

The following reports, received from local correspondents of the medical profession in the several cities, towns and villages of the State, will give a good representation of the general status of the public health during the year 1885, as to the presence or absence of epidemics or endemics in the several locations, the sanitary conditions and improvements, if any, in their several circuits, and other suggestions in response to the preceding circular :

## BRISTOL COUNTY.

2. BRISTOL.

3. Taking sickness of all kinds there has been less than usual in my circuit during the past year.

The following zymotic diseases have prevailed during the year :

Cholera Infantum. Not a large number of cases. Less than average, sporadic and mild, summer months.

Croup. Only a few cases ; average.

Diarrhea and Dysentery. Very few cases of dysentery. Diarrhea quite largely prevalent during July and August.

Diphtheria. Quite prevalent all about town, especially during November and December, and severe, almost epidemic.

Fever, Malarial. No cases.

Fever, Typhoid. The amount of typhoid fever was much less than during the previous year. The average severity greater. Mostly prevalent in the fall.

Measles. Only a few cases.

Scarlatina. Very few cases ; mild.

Small Pox. No cases.

Whooping Cough. Average prevalence scattered through the year.

5. No zymotic diseases epidemic.

Brain, Inflammation and Congestion of. Small throughout the year, of average severity.

Bronchitis, Acute. Average severity. Large numbers the last two months of the year, November and December.

Meningitis, Cerebro Spinal. No cases to my knowledge.

Pneumonia. Few mild cases in November and December.

Rheumatism. Average number first half of the year.

Stomach, Acute diseases of. Small prevalence. July and August.

6. No other diseases have had unusually large prevalence during the past year.

7. Diphtheria and typhoid fever have been attended with unusual fatality.

9. Sanitary measures are being rather better observed through the influence of more general enlightenment on that question.

T. H. Shipman, M. D.

2. Warren, Barrington and part of Rehoboth.

3. Taking sickness of all kinds, there has been an average amount during the past year.

The following zymotic diseases have prevailed during the year :

Cholera Infantum. Average. Summer months.

Croup. Less than usual.

Diarrhea and Dysentery. About as usual of both.

Diphtheria. Sporadic cases, none fatal.

Fever, Malarial. Less than previous years, largely less.

Fever, Typhoid. More than in 1884, less than in 1883, none fatal. Fall and winter months.

Measles. None.

Scarlatina. Only one or two cases. Two or three are reported by other physicians. Mild. Winter months.

Small Pox. None.

Whooping Cough. A few cases have been reported ; a very few have received aid professionally, reliance having been placed on home treatment.

5. No zymotic diseases epidemic.

Bronchitis. Average. Fall, winter and spring.

Meningitis, Cerebro Spinal. None.

Pneumonia. Quite severe. Large in spring months of 1885.

Rheumatism. Average. Fall, winter and spring.

Stomach, Acute diseases of. Average.

6. No diseases have had unusually large prevalence during the year.

7. The only disease attended with unusual fatality was pneumonia, especially in the case of aged people.

8. Nothing unusual.

9. The introduction of Kickimuit water to the tenement blocks of Warren Manufacturing Co.; the increased attention to neatness, removal of filth, etc., from same, and the laying of sewers through two important streets in Warren.

G. L. CHURCH, M. D.

## KENT COUNTY.

2. COVENTRY.

3. There has been the least sickness taking the whole year together, that I have known for several years.

The following zymotic diseases have prevailed during the year:

Cholera Infantum. But very little during the past summer. I did not attend a case of genuine cholera infantum during the summer.

Croup. A few mild cases only.

Diarrhea and Dysentery. Considerable diarrhea, but little dysentery.

Diphtheria. Quite an amount in a mild form.

Fever, Malarial. A few cases, some of them more persistent than severe.

Fever, Typhoid. No cases.

Measles. There was an epidemic last spring of some severity. A number died from complications. One from resulting brain fever.

Scarlatina. Several cases early in the fall quite severe, but none fatal.

Small Pox. None.

Whooping Cough. There is at present a slight epidemic, but not severe.

5. No other zymotic disease epidemic.

Brain, Inflammation and Congestion of. A few cases in April. Two fatal.

Bronchitis, Acute. None.

Meningitis, Cerebro Spinal. None.

Pneumonia. But very little during the year. None fatal.

Rheumatism. Considerable during the spring months.

Stomach, Acute diseases of. None.

6. No diseases, not classed as zymotics, had unusually large prevalence during the year.

7. Measles have been attended with unusual fatality.

8. Nothing new.

9. There is an advance in public sentiment in regard to the importance of sanitary improvements. People are bringing their homes under better sanitary regulations, regarding drainage, ventilation, etc.

John Winsor, M. D.

2. Coventry and portions of adjoining towns.

3. There has been *more mild* sickness and *less severe* sickness than usual, making an *average* of about five per cent. *more* than usual.

Zymotic diseases have prevailed as follows:

Cholera Infantum. But few cases and mild, during summer.

Croup. Winter months. Very few cases, but severe.

Diarrhea and Dysentery. Very many cases in factory tenements, and where the wells are shallow. During summer.

Diphtheria. Many mild cases the entire year, especially in vicinity of stagnant ponds and where drainage is bad.

Fever, Malarial. Few severe cases at Coventry Centre.

Fever, Typhoid. Few mild cases in the villages.

Measles. Many cases during spring and summer. Very severe.

Scarlatina. Very little and generally very mild. One severe and fatal.

Small Pox. None.

Whooping Cough. Average amount and very mild.

5. No zymotic disease was epidemic.

Brain, Inflammation and Congestion of. Only two cases. July and December.

Bronchitis, Acute. Less than usual, from January to November, and very many cases from November to January, some severe.

Meningitis, Cerebro Spinal. No well defined cases.

Pneumonia. Less than usual.

Rheumatism. More than usual, but mild.

Stomach, Acute diseases of. Few severe cases, many mild cases with children in summer months.

6. No diseases had unusually large prevalence.

9. There is some advance in public sentiment in regard to the importance of sanitary surroundings as a means of preventing diseases. Among the better and middle classes there have been some improvements in drainage, ventilation, etc.

F. B. Smith, M. D.

2. East Greenwich and part of Warwick and of North Kingstown.

3. Of sickness of all kinds about an average with other years.

The following zymotic diseases have prevailed:

Cholera Infantum. Prevalent to an unusual extent in the months of July, August and September.

Croup. Not very much.

Diarrhea and Dysentery. Rather more than the average in July, August and September.

Diphtheria. Not prevalent as an epidemic.

Fever, Malarial. Not as much as the two or three previous years.

Fever, Typhoid. Very few cases.

Measles. Very little, if any.

Scarlatina. Circumscribed clusters of cases in January and in September.

Small Pox. None.

Whooping Cough. A little.

5. No zymotic diseases epidemic.

Brain, Inflammation and Congestion of. Below the average.

Bronchitis, Acute. In the spring, in the form of influenza and catarrhal fever.

Meningitis, Cerebro Spinal. Below the usual number.

Pneumonia. About the average, in winter and spring, and occasionally all through the year.

Rheumatism. Above the average. Spring and fall.

Stomach, Acute diseases of. Nothing especial.

6. Rheumatism had an unusually large prevalence during the year.

7. Cholera infantum was attended with unusual fatality.

8. Nothing more than previously reported.

In regard to the importance of sanitary surroundings, or increased interest in means of preventing diseases, no very marked progress shown in that line.

J. H. ELDREDGE, M. D.

2. EAST GREENWICH and vicinity.

3. Taking sickness of all kinds, there has been one-third more than usual in my circuit during the past year.

The following zymotic diseases have prevailed:

Cholera Infantum. Very prevalent in July, August and September.

Croup. One case of membranous which was fatal. Quite a number of cases of false croup.

Diarrhea and Dysentery. Very prevalent in July, August and September.

Diphtheria. But little diphtheria.

Fever, Malarial. But little.

Fever, Typhoid. Average number of cases during fall.

Measles. None.

Scarlatina. But little.

Small Pox None.

Whooping Cough. But little.

5. No zymotic disease quite epidemic.

Brain, Inflammation and Congestion of. Average prevalence.

Bronchitis, Acute. Average prevalence, January, February and March.

Meningitis, Cerebro Spinal. None known.

Pneumonia. Average prevalence, January, February and March.

Rheumatism. Average, or perhaps rather more, throughout the year.

Stomach, Acute diseases of. Average, July, August and September.

6. No disease except cholera infantum had unusually large prevalence.

7. The diseases attended with unusual fatality were cholera infantum and dysentery. Greater prevalence of cholera infantum and dysentery during July, August and September, than there has been for several years. Many of these cases developing convulsions and proving fatal. Probably twice as many as the average.

8. Have known of no certain communication of disease from one person to another during the year 1885. During November and December there was but *very little* sickness of *any kind.*

9. No advance apparent in public or individual sentiment, in regard to means of preventing disease.

E. G. Carpenter, M. D.

2. River Point, and adjoining villages, Warwick and Coventry.

3. Taking sickness of all kinds, there has been ten per cent. more than usual in this circuit during the past year.

The following diseases have prevailed :

Cholera Infantum. Less than usual; during June, July and August.

Croup. Sporadic cases.

Diarrhea and Dysentery. Average amount, summer and fall.

Diphtheria. About the same as last year. Cases occurred nearly every month in the year.

Fever, Malarial, Less than last year.

Fever, Typhoid. Increase over last year. Quite a number of severe cases in Natick. Many of the factory tenements in Natick were unoccupied over two years, and a mass of filth and rubbish lay in the cellars, producing an important factor in propagating the fever.

Measles. Very prevalent in the spring, but of mild type.

Scarlatina. Sporadic cases ; mild.

Small Pox. One light case of varioloid.

Whooping Cough. Sporadic cases.

Brain, Inflammation and Congestion of. Average.

Bronchitis, Acute. Average, during winter and spring.

Meningitis, Cerebro Spinal. Average.

Pneumonia. Increase and very severe; winter and spring.

Rheumatism. Increase; spring and summer.

Stomach, Acute diseases of. Average.

7. The diseases attended with unusual fatality were pneumonia and typhoid fever.

9. There is a slight advance in public sentiment and in the views of individuals, in regard to the importance of sanitary surroundings. Health officers appointed by the council.

A. G. SPRAGUE, M. D.

2. WARWICK and neighboring towns.

3. Taking sickness of all kinds there has been about one-fifth more than last year.

The following zymotic diseases have prevailed in my circuit during the year:

Cholera Infantum. Less cases and mild, in summer months.

Croup. Average in the first part of the year, but prevailing in November and December. Membranous croup very severe.

Diarrhea and Dysentery. Average through the whole year.

Diphtheria. Less frequent and milder.

Fever, Malarial. Has prevailed in every month, and mostly in the first half of the year.

Fever, Typhoid. Few cases, and mild.

Measles. Average and mild, in winter months.

Scarlatina. A few cases early in fall, very mild.

Whooping Cough. Many sporadic cases.

5. No zymotic disease epidemic.

Brain, Inflammation and Congestion of. Small number.

Bronchitis, Acute. Average.

Meningitis, Cerebro Spinal. Rather unusual prevalence.

Pneumonia. Small number, severe, spring months.

Rheumatism. Several cases, average severity.

Stomach, Acute diseases of. Small number; not severe.

6. No diseases have had unusually large prevalence during the year.

7. The principal diseases attended with unusual fatality with me were meningitis and membranous croup.

M. J. E. LEGRIS, M. D.

## NEWPORT COUNTY.

2. NEWPORT, JAMESTOWN and MIDDLETOWN.

3. Taking sickness of all kinds, there has been about the usual amount during the year.

The following zymotic diseases have prevailed to the extent reported during the year:

Cholera Infantum. No unusual prevalence.

Croup. Very little.

Diarrhea and Dysentery. About the usual amount.

Diphtheria. Very small prevalence. In a quite severe form in a very few localities.

Fever, Malarial. None except such as originated elsewhere.

Fever, Typhoid. Not much, hardly an average.

Measles. None to my knowledge.

Scarlatina. A few cases, continuous through the year ; mild ; scarcely any fatality.

Small Pox. None.

Whooping Cough. I have not known of any.

5. No zymotic disease epidemic.

Brain, Inflammation and Congestion of. Very little to my knowledge.

Bronchitis, Acute. Quite prevalent in winter and spring, as usual. Seldom fatal.

Meningitis, Cerebro Spinal. Very few. Sporadic.

Pneumonia. Quite prevalent during the spring and fall months; not unusually severe.

Rheumatism. About the usual number.

Stomach, Acute diseases of. No unusual prevalence.

6. No diseases have had unusually large prevalence during the year.

7. No diseases have been attended with unusual fatality.

8. No circumstances have occurred within the year that seemed to indicate the probability that scarlet fever, diphtheria or typhoid fever had been taken or communicated from one person to another. Possibly scarlet fever in two or three instances. Perhaps in diphtheria, probably not except in one family.

9. There has been quite an active and increased public interest in sanitary questions and sanitary measures.

H. E. Turner, M. D.

2. Block Island, New Shoreham.

3. Taking sickness of all kinds, there has been about one-quarter more than usual.

The following zymotic diseases have prevailed during the year:

Cholera Infantum. But two or three cases.

Croup. None.

Diarrhea and Dysentery. Average amount, or slightly larger; during July and August.

Diphtheria. Two cases, severe. The first case undoubtedly contracted away.

Fever, Malarial. None.

Fever, Typhoid. Unusual amount, as there is usually but one or two cases annually, and always during August, September and October.

Measles. None.

Scarlatina. One case only, contracted on the main land.

Small Pox. None.

Whooping Cough. None.

5. No zymotic disease epidemic.

Brain, Inflammation and Congestion of. None.

Bronchitis, Acute. Small. Mostly in winter months; some in the late fall months.

Pneumonia. None.

Rheumatism. Average. Mainly chronic cases.

Stomach, Acute diseases of. Small.

6. No diseases, not classed as zymotics, had unusually large prevalence during the year.

7. No diseases have been attended with unusual fatality.

8. In regard to circumstances that seemed to indicate that diphtheria had been communicated from one person to another, see following: A summer boarder who came here in July last and who had just lost one child by diphtheria came with his family to one of the hotels, and in a few days after their arrival, another child came down with the same disease and in a few days died. Within a short time two members of the family with whom they were boarding came down with the same disease. One case was severe. These persons had not been away from the island for months. Diphtheria is very rare on the island, these being the only cases in five years.

9. A small advance in public sentiment, more care being taken in regard to cesspools.

C. H. HADLY, M. D.

2. BLOCK ISLAND, NEW SHOREHAM.

3. As to sickness of all kinds, whether more or less than usual during the year, I can only reply from accounts given me. Since my coming in April, 1885, there has been much more than for several years.

The following zymotic diseases have prevailed during the year.

Cholera Infantum. But very little.

Croup. Not much.

Diarrhea and Dysentery. Prevailed extensively during July and August owing to an extensive drought.

Diphtheria. But one case came under my notice, and this was imported.

Fever, Malarial. None of an intermittant character, but considerable of a continued or remittent type. No true malarial diseases originating here.

Fever, Typhoid. Prevailed quite extensively from August till November. but most of it was of a mild type and easily managed.

Measles. None.

Scarlatina. None.

Small Pox. None.

Whooping Cough. Three cases came under my treatment in August, but was imported from New York city and did not spread, as we quarantined them.

Bronchitis, Acute. Considerable during November and December.

Rheumatism. Very little of it, considering the occupation of the inhabitants.

Stomach, Acute diseases of. Much chronic dyspepsia exists, but none, or few, of an acute type.

6. No diseases not classed as zymotics had large prevalence during the past year except as what one meets in a general practice.

7. Typhoid fever had large proportional fatality.

8. The typhoid fever that existed here was the result of poor sanitary measures.

9. There has been little, if any, advance in sentiment, whether public or private, as to the improvement of our sanitary conditions which are in a bad state.

J. E. Bennett, M. D.

2. Little Compton.

3. Taking sickness of all kinds, there has been more than usual in my circuit during the past year by one-tenth.

The following zymotic diseases have prevailed:

Cholera Infantum. Severe all over the town.

Croup. Very little.

Diarrhea and Dysentery. About as last year, but more severe.

Diphtheria. None.

Fever, Malarial. Several slight cases.

Fever, Typhoid. Two very severe cases.

Measles. Very prevalent, with secondary diseases causing death.

Scarlatina. None.

Small Pox. None.

Whooping Cough. Severe, with moderate prevalence.

5. No zymotic disease becoming prevalent.

Other diseases:

Brain, Inflammation and congestion of. Mild; any time.

Bronchitis, Acute. Severe; average number; January, February, March, September, October.

Pneumonia. Very severe; average prevalence; March.

Rheumatism. More or less during the year. Considerable chronic.

Stomach, Acute diseases of. About same as last year.

6. No diseases, not classed as zymotics, had unusually large prevalence.

7. Measles were attended with unusual fatality.

8. No new circumstances that seemed to indicate that scarlet fever, diphtheria or typhoid fever had been communicated from one person to another. None but what I have given before.

9. There is some advance in public sentiment in regard to the importance of sanitary surroundings, especially in regard to cesspools and vaults, a better idea or knowledge about them.

I. B. COWAN, M. D.

## PROVIDENCE COUNTY.

2. BURRILLVILLE.

3. The amount of sickness has been about the same as usual.

The following diseases have prevailed during the year:

Cholera Infantum. Three or four cases. All cases under this head were due to the feeding bottle.

Croup. None except diphtheritic.

Diarrhea and Dysentery. Sporadic; small average; summer months.

Diphtheria. Three or four cases; sporadic.

Fever, Malarial. Have not seen any well marked cases that were developed in this locality.

Fever, typhoid. A few sporadic cases.

Measles. A considerable number of cases in Harrisville; not more than two or three in Pascoag. October and November.

Scarlatina. None in my circuit.

Small Pox. None.

Whooping Cough. Epidemic from September to latter part of November.

5. No other zymotic disease epidemic.

Bronchitis, Acute. Very few; very mild.

Meningitis, Cerebro Spinal. None.

Pneumonia. A considerable number of cases. April and May, November and December.

Rheumatism. Mostly chronic.

Stomach, Acute diseases of. None.

6. No diseases, not classed as zymotics had unusually large prevalence.

7. No diseases attended with unusual fatality.

8. Do not think that I can give any new facts in regard to question 8.

9. Have not seen any evidence of advance in public sentiment in regard to means of preventing diseases.

H. J. BRUCE, M. D.

2. East Providence and vicinity.

3. Taking sickness of all kinds, I should judge there had been more than an average amount during 1885.

The following zymotic diseases have prevailed in my circuit during the year.

Cholera Infantum. Sporadic; average; in hot months. Watchemoket and Riverside mostly.

Croup. See diphtheria, which preceded or prevailed at the same time endemic.

Diarrhea and Dysentery. Very little during hot months, and mild.

Diphtheria. Sporadic. Severe in March, April, June, October and November. Four cases proved fatal by croup to my knowledge, two in Watchemoket, and two in Seekonk. No other fatal cases that I know of. In May it is said two cases died of croup, but this disease visited nearly every house at the time on Walnut street, and in the houses where death occurred.

Fever, Malarial. Very few cases. One severe.

Fever, Typhoid. Two cases at Riverside, in one house; severe; March and April. Sanitary surroundings bad. Riverside—Few mild cases during autumnal months. One severe case. November and December.

Measles. Mild. Few cases.

Scarlatina. Mild. Sporadic. January, February, March, May and October.

Whooping Cough. Mild; quite prevalent through summer.

5. No zymotic disease epidemic.

Other diseases as follows:

Brain, Inflammation and Congestion of. Small number.

Bronchitis, Acute. Average prevalence. Spring mostly.

Meningitis, Cerebro Spinal. Small number. Sporadic.

Pneumonia. None.

Rheumatism. Small or average number.

Stomach, Acute diseases of. Very few.

6. No diseases not classed as zymotics had unusually large prevalence.

7. None unusually fatal.

8. In relation to circumstances that seemed to indicate that scarlet fever, diphtheria or typhoid fever had been communicated from one person to another, I have no notes, but am certain that I have traced many cases of all these diseases to preceding causes.

9. In relation to any advance in public sentiment in regard to the importance of sanitary surroundings, I think there has been, especially the past summer, a fear of cholera, and the efforts of health officers have wrought good results.

Simeon Hunt, M. D.

2. Valley Falls, Cumberland and Lincoln.

3. Usual sickness of all kinds has been of average amount in this circuit during the past year.

The following diseases have prevailed.

Cholera Infantum. Sporadic; mild; July and August.

Croup. Sporadic; severe; November.

Diarrhea and Dysentery. Sporadic; mild. The summer months.

Diphtheria. No cases.

Fever, Malarial. Sporadic ; mild. From May to November, very general through the village.

Fever, Typhoid. Sporadic. Average, October.

Measles. None.

Scarlatina. Sporadic; mild. June.

Small Pox. One case. Not fatal.

Whooping Cough. A few cases. April and May.

5. No zymotic disease epidemic.

Bronchitis, Acute. Small. Scattered through the year.

Pneumonia. Small prevalence. March and November.

Rheumatism. Average amount. March and April.

Stomach, Acute diseases of. Average number. July, August and September.

6. No diseases have had unusually large prevalence.

7. None attended with unusual fatality.

G. B. HAINES, M. D.

2. GLOCESTER and BURRILLVILLE.

3. Taking sickness of all kinds, there was an average amount in this circuit during the past year.

The principal diseases that prevailed during the year were as stated below:

Cholera Infantum. None.

Croup. None.

Diarrhea and Dysentery. Sporadic cases only. Warm months.

Diphtheria. None.

Fever, Malarial. None except imported cases.

Fever, Typhoid. Sporadic cases only. Average number of cases.

Measles. Epidemic in Burrillville. Mild.

Scarlatina. None.

Small Pox. None.

Whooping Cough. Epidemic in Glocester and Burrillville. Spring. Moderately severe.

5. No other zymotic disease epidemic.

Brain, Inflammation and Congestion of. Small.

Bronchitis, Acute. Large number. Cold months.

Meningitis, Cerebro Spinal. None.

Pneumonia. Large number. March, April, December.

Rheumatism. Average amount.

Stomach, Acute diseases of. Average prevalence.

6. No diseases, not classed as zymotics, had unusually large prevalence during the year, except pneumonia.

7. No diseases attended with unusual fatality.

9. Cannot report any advance in public sentiment in regard to the importance of sanitary improvements.

POTTER & HARRIS, M. D's.

2. Parts of PROVIDENCE, JOHNSTON, NORTH PROVIDENCE AND CRANSTON.

3. Taking sickness of all kinds, there has been more than usual, but some forms of disease have been of less general severity.

The following zymotic diseases have prevailed the past year :

Cholera Infantum. Less than in ordinary years.

Croup. Large prevalence in the fall months.

Diarrhea and Dysentery. About an average during the summer. Some cases of winter cholera, so called.

Diphtheria. Large amount through all the year, except the summer months.

Fever, Malarial. About the same as in the previous year. Rather less, if any difference.

Fever, Typhoid. Considerable during the spring. Less than usual in the fall.

Measles. Moderate prevalence through the year.

Scarlatina. Increased number of cases over last year, but very much milder in severity.

Small Pox. None.

Whooping Cough. But very little prevalence in Johnston ; more in the city of Providence.

5. No zymotic disease epidemic.

Diseases not zymotic as follows:

Brain, Inflammation and Congestion of. Ordinary average.

Bronchitis, Acute. Rather large. February, March and April; also November and December.

Meningitis, Cerebro Spinal. Sporadic cases. Infrequent.

Pneumonia. Large prevalence late winter and spring months, and late fall. Of unusual severity and fatality.

Rheumatism. Rather above average.

Stomach, Acute diseases of. Not many cases of disease especially confined to that organ.

6. Pneumonia and bronchitis have had unusually large prevalence during the year.

7. The diseases attended with unusual fatality were diphtheria and pneumonia.

8. There are every year circumstances within my observation or knowledge that seemed to indicate that scarlet fever and diphtheria had been communicated from one person to another. An account of the same for 1885, would be a repetition of similar circumstances stated at previous times.

9. There has been a decided advance in public sentiment in my circuit, in regard to the importance of sanitary surroundings. More general cleanliness in households and yards, more attention to ventilation. More inquiry in relation to sanitary matters.

GEO. R. FISHER, M. D.

2. PAWTUCKET.

3. There has been about the usual amount of sickness of all kinds during the past year.

The following zymotic diseases have prevailed during the year:

Cholera Infantum. Average, in summer months.

Croup. Not an unusual amount.

Diarrhea and Dysentery. Not as much as in some years.

Diphtheria. Probably usual amount of average severity.

Fever, Malarial. Considerable during the summer months, and scattered over the city. Mild.

Fever, Typhoid. Not as much as in other years, and of average severity.

Measles. Considerable. Mild.

Scarlatina. A large number of cases, but of mild type, all over the city.

Small Pox. None.

Whooping Cough. Less than usual.

5. No zymotic disease epidemic.

Other diseases as follows:

Brain, Inflammation and Congestion of. Small.

Bronchitis, Acute. Considerable, last of year.

Meningitis, Cerebro Spinal. Small. Sporadic.

Pneumonia. Moderate prevalence, first and last of year.

Rheumatism. Usual number, all through year.

Stomach, Acute diseases of. Small number.

6. No diseases had unusually large prevalence

7. No diseases attended with unusual fatality.

8. Nothing new.

9. As to increased interest in means of preventing diseases, the town provided for house to house vaccination which has been thoroughly done.

F. B. FULLER, M. D.

2. PROVIDENCE.

3. Taking sickness of all kinds there has been less than during the three years preceding.

The following zymotic diseases have prevailed during the year :

Cholera Infantum. Severe during July, August and September.

Croup. About the usual number of cases. Most prevalent during January and December.

Diarrhea and Dysentery. Less than during 1884.

Diphtheria. Sporadic. Generally appeared where sanitary conditions were imperfect. Became more severe in November and December.

Fever, Malarial. Quite prevalent in the suburbs. Cases of typhoid character increasing.

Fever, Typhoid. Has decreased annually since 1882.

Measles. But few cases. Mild.

Scarlatina. Quite prevalent, and evenly distributed over the city. Most cases mild. Children absent from the public schools on account of scarlet fever are not allowed to return until the medical inspector certifies that desquamation has ceased. But parents often permit such convalescent children to attend a Sunday School or to play with other children on the streets; a common method of spreading the disease.

Small Pox. None since 1883.

Whooping Cough. More than average prevalence, but not epidemic. Average severity.

5. No zymotic disease epidemic.

Other diseases prevailed as follows:

Brain, Inflammation and Congestion of. Average throughout the year.

Bronchitis, Acute. Largely prevalent. Above average severity in the first three and last three months of the year.

Meningitis, Cerebro Spinal. But few cases.

Pneumonia. Above average prevalence. Quite severe, especially during the spring months.

Rheumatism. About the usual number of cases, and of average severity.

Stomach, Acute diseases of. Average prevalence. Largest occurrence during the summer.

7. The diseases attended with unusual fatality were pneumonia, bronchitis, and diseases of the heart.

8. There were circumstances that occurred within my observation which seemed to indicate that scarlet fever had been communicated from one person to another.

9. The fear of cholera and of small pox increased the popular interest in sanitation. The Superintendent of Health freely distributed circulars of infor-

mation concerning the prevention of infectious and filth diseases, which directed attention to cleanliness and suggested additional sanitary precautions.

GEO. D. HERSEY, M. D.

2. SCITUATE and parts of JOHNSTON, SMITHFIELD and GLOCESTER.

3. The amount of sickness of all kinds has been about the same as usual in this circuit during the past year.

Zymotic diseases have prevailed in this circuit during the year as follows:

Cholera Infantum. Moderate prevalence.

Croup. None.

Diarrhea and Dysentery. Moderate prevalence.

Diphtheria. Large number, but sporadic. Winter and fall.

Fever, Malarial. Very little compared with previous years.

Fever, Typhoid. Moderate prevalence. Fall months.

Measles. No cases.

Scarlatina. None.

Whooping Cough. None.

5. No zymotic disease epidemic.

Diseases not zymotic:

Bronchitis, Acute. Small prevalence. Spring months.

Pneumonia. Average. Not large.

Rheumatism. Average of ordinary years.

Stomach, Acute diseases of. Infrequent.

6. No diseases had unusually large prevalence.

7. No diseases attended with unusual fatality.

9. Not much observable interest in sanitary questions.

W. J. SMITH, M. D.

2. SMITHFIELD, GREENVILLE circuit, parts of GLOCESTER, SCITUATE and JOHNSTON.

3. Taking sickness of all kinds, except acute bronchitis, there has been about one-fourth less than usual during the past year.

The following diseases have prevailed:

Cholera Infantum. Very small number.

Croup. Almost none at all.

Diarrhea and Dysentery. Slight prevalence only.

Diphtheria. Nearly average.

Fever, Malarial. Very small number.

Fever, Typhoid. Very little during the year.

Measles. None.

Scarlatina. Very few cases.

Whooping Cough. Very few.

5. No zymotic disease epidemic.

Brain, Inflammation and Congestion of. Small Number.

Bronchitis, Acute. Large. The last half of January, February and March.

Meningitis, Cerebro Spinal. Very few.

Pneumonia. Less than usual.

Rheumatism. Average of other years.

Stomach Acute diseases of. Very small number.

6. No diseases had unusually large prevalence.

7. No unusual fatality.

8. No circumstances occurred within the year that seemed to indicate with any certainty that scarlet fever, diphtheria or typhoid fever had been communicated from one person to another.

9. In regard to the importance of sanitary surroundings and interest in means of preventing diseases, I think there is a gradual improvement in public sentiment, arising from an increased knowledge of sanitary requirements.

R. P. Eddy, M. D.

2. Woonsocket and vicinity.

3. Taking sickness of all kinds there has been a somewhat diminished prevalence during 1885.

The following zymotic diseases have prevailed as noted :

Cholera Infantum. Hardly average prevalence.

Croup. Sporadic. Not large number.

Diarrhea and Dysentery. Moderate prevalence.

Diphtheria. Not above an average.

Fever, Malarial. Large prevalence, but less than in the previous year and less severe.

Fever, Typhoid. Moderate prevalence of mild type.

Scarlatina. Rather large prevalence and not of special severity. Sporadic. Fall months.

Small Pox. None.

Whooping Cough. Very large prevalence, average severity. Scattered promiscuously through the community.

Brain, Inflammation and Congestion of. Average prevalence. Different months.

Bronchitis, Acute. About the usual number. February, March, December.

Pneumonia. Moderate prevalence, mostly of average severity. Late winter and early spring months.

Rheumatism. About an average in prevalence and severity.

6. No diseases, not classed as zymotics, had unusually large prevalence.

7. No unusual fatality.

Geo. W. Jenckes, M. D.

2. WOONSOCKET, CUMBERLAND and NORTH SMITHFIELD.

3. There has been of sickness of all kinds, nearly the usual amount during the past year.

Zymotic diseases have prevailed during the year as follows :

Cholera Infantum. Average. Sporadic.

Croup. Sporadic. January, February, December. Severe. Widely separated districts.

Diarrhea and Dysentery. Average. Sporadic.

Diphtheria. Average. Sporadic. February, March, December.

Fever, Malarial. Almost epidemic. Mild. All months and all localities. Less, however, than last year.

Fever, Typhoid. Average. Sporadic. Mild, except at Manville, Lincoln, severe there. July to December.

Measles. Few cases. Mild.

Scarlatina. Sporadic. Mostly miid. Separated localities.

Small Pox. None.

Whooping Cough. Epidemic, quite severe. September to end of December.

5. No other zymotic disease epidemic.

Brain, Inflammation and Congestion of. None.

Bronchitis, Acute. Average prevalence. January, February, March, November and December.

Meningitis, Cerebro Spinal. None.

Pneumonia. Average prevalence. February, March, December.

Rheumatism. Average. March, April, May, September to December.

Stomach, Acute diseases of. Average. June to September.

6. No diseases, not classed as zymotics, had unusually large prevalence during the year.

7. No diseases attended with unusual fatality.

8. As to circumstances that seem to indicate that scarlet fever, diphtheria or typhoid fever had been communicated from one person to another, it may be said that we can often trace the communication in each of those diseases, but not always.

9. It does not seem as though there was much advance in public sentiment in this circuit, in regard to the importance of sanitary improvements.

WM. C. MONROE, M. D

## WASHINGTON COUNTY.

2. RICHMOND, CHARLESTOWN and parts of HOPKINTON and WESTERLY.

3. Taking sickness of all kinds, there has been about the usual amount in this circuit during the past year.

Diseases have prevailed during the year as follows:

Cholera Infantum. None.

Croup. Very few.

Diarrhea and Dysentery. Rather less than average.

Diphtheria. A few cases.

Fever, Malarial. Several imported cases.

Fever, Typhoid. Very little prevalence. Mild type.

Measles. Quite a number of mild cases during fall months.

Scarlatina. Several severe isolated cases.

Small Pox. None.

Whooping Cough. Mild. Few cases.

5. No zymotic disease epidemic.

Brain, Inflammation and Congestion of. A few cases during summer months.

Bronchitis, Acute. Large number during fall and winter months.

Meningitis, Cerebro Spinal. None.

Pneumonia. About an average number of cases during the year.

Rheumatism. Above average number of cases.

Stomach, Acute diseases of. A few cases.

6. No diseases, not classed as zymotics, had unusually large prevalence.

7. None attended with unusual fatality.

9. No noticeable advance in public sentiment in regard to the importance of sanitary improvements or means of preventing diseases.

A. H. Eccleston, M. D.

2. Hopkinton, parts of Charlestown, Richmond and Westerly.

3. The average amount of sickness of all kinds in this circuit in 1885, has been ten per cent. or more, less than usual.

The following zymotic diseases have prevailed during the year :

Cholera Infantum. A few sporadic cases reported.

Croup. About an average with the past five years.

Diarrhea and Dysentery. Sporadic cases during summer and fall months, generally mild.

Diphtheria. But very few cases have been reported during the year.

Fever, Malarial. A few cases during the spring and fall months.

Fever, Typhoid. There has been much less typhoid than usual, and of a very mild nature. I think no deaths reported during the year.

Scarlatina. A few cases in the early months of the year. Average severity.

Small Pox. None.

Whooping Cough. A few cases during fall and winter months.

5. No zymotic disease epidemic.

Bronchitis, Acute. Average number. Fall and spring.

Pneumonia. Average prevalence. January to May.

Rheumatism. Less than average, through the year.

6. No diseases had unusually large prevalence.

7. No unusual fatality.

9. There has been no marked advance in sanitary improvement during the past year.

A. B. Briggs, M. D.

2. Westerly.

3. Taking sickness of all kinds, during the whole period, there has been less than usual during the past year.

The following zymotic diseases have prevailed to a greater or less extent during the year.

Cholera Infantum. Less than usual.

Croup. Average prevalence.

Diarrhea and Dysentery. Moderate prevalence. Mostly through the heated term.

Diphtheria. Sporadic. Genuine cases few.

Fever, Malarial. Less than in the past two or three years.

Fever, Typhoid. Small prevalence. Early fall.

Measles. Small prevalence.

Scarlatina. January and February, epidemic. The last part of the first quarter of the year it was more mild. The beginning was very fatal.

Whooping Cough. Average.

5. No other zymotic disease epidemic.

Other diseases as follows :

Brain, Inflammation and Congestion of. Mostly in children. I should say average prevalence of.

Bronchitis, Acute. Average prevalence. Spring and late fall.

Meningitis, Cerebro Spinal. I have known of none.

Pneumonia. Average prevalence. Spring, mostly.

Rheumatism. A few cases, all chronic.

Stomach, Acute diseases of. One or two cases.

6. No diseases, not classed as zymotics, had unusually large prevalence.

7. No diseases have been attended with unusual fatality.

9. As to any advance in public sentiment in regard to the importance of sanitary surroundings, I think there exists a better feeling in this direction, the people seem to have awakened to the need of sanitary measures.

H. W. Rose, M. D.

2. Westerly.

3. Taking sickness of all kinds, there has been by from ten to twenty per cent. less than usual in this town during the past year.

The most important diseases that have prevailed in this town during the past year are:

Cholera Infantum. A few cases in August and September. Average in severity.

Diarrhea and Dysentery. Average prevalence. Summer.

Diphtheria. No genuine cases seen. A form of pollicular pharymgitis has been prevalent throughout the year and in some cases appeared to be contagious or at least infectious.

Fever, Malarial. Much less frequent than during 1883 and 1884. Usually tertian in form.

Fever, Typhoid. Nine cases during August and September. Four in one house, two in one and three cases in different houses and localities. In two cases evidently a contaminated well; in other cases poor drainage and sanitary surroundings.

Scarlatina. Epidemic in January, February and March, though not so severe as during last months of 1884. Sporadic cases during the entire year. Probably nearly 200 cases occurred in Westerly during five months.

5. No other zymotic disease epidemic.

Other important diseases:

Bronchitis, Acute. Average prevalence through year.

Meningitis, Cerebro Spinal. Two fatal cases. November.

Pneumonia. Average. Spring, November and December.

Rheumatism. Increase in number and severity during last months of the year.

6. No diseases. not classed as zymotics, had unusually large prevalence.

7. No diseases have been attended with unusual fatality.

8. Undoubted belief in contagiousness of scarlet fever and diphtheria, but not of typhoid fever.

9. The appointment of a Superintendent of Health and passing of ordinances relative to public health are an undoubted advance in public sentiment, but a failure to enforce the same proves the lukewarmness of such action.

F. T. ROGERS, M. D.

2. WESTERLY.

3. Taking sickness of all kinds, there has been more than the average the first half of the year, and less than the average in the latter months.

The following zymotic diseases were prevalent:

Cholera Infantum. A few sporadic cases in the summer months, and in September.

Croup. Very few cases.

Diarrhea and Dysentery. About an average number of cases in the summer and fall, and a few in December.

Fever, Malarial. Somewhat less than in the previous year.

Fever, Typhoid. Not more than usual.

Scarlatina. Was epidemic the first four months of the year, and prevailed to a greater extent than in several years past. Mortality between 8 and 9 per cent

Whooping Cough. Not more than usual.

5. No other zymotic disease epidemic, except perhaps chicken pox.

Diseases not zymotic :

Brain, Inflammation and Congestion of. A few cases, scattered through the year.

Bronchitis, Acute. Average. · Mostly in winter and spring.

Meningitis, Cerebro Spinal. I have seen none.

Pneumonia. Average prevalence. Scattered through the year.

Rheumatism. Average prevalence. Mostly in cold months.

Stomach, Acute diseases of. Average. Chiefly among children. In summer and fall.

6. No diseases, not classed as zymotics, had unusually large prevalence.

7. None attended with unusual fatality.

8. I have seen many cases of scarlet fever and diphtheria which were clearly due to contagion, but have never seen typhoid fever so communicated. I published an account of some cases of diphtheria in the Phil. Med. Times, for June 19, 1880.

9. There is an advance in public sentiment in regard to means of preventing diseases, evidenced by ordinances of the town council to check the spread of contagious or infectious diseases in the schools, by a few cases of inspection of private premises with a view to have unsanitary conditions removed, and by the appointment of a physician as health officer in the town, as well as by the formation of a company to supply the village with good water.

J. H. MORGAN, M. D.

# REPORTS FROM TOWNS

## IN RELATION TO SANITARY IMPROVEMENTS, ETC.

Reports from town authorities have been solicited as in previous years, in continuance of the purpose of the Secretary to keep well informed of all proceedings throughout the State, on the part of town or city councils, or any form of municipal authority, in the direction of improvements which have in view and seem to promise the promotion of the public health; by the abatement of nuisances; the removal of unsanitary conditions and surroundings; or by the introduction or establishment of public works, which may not only be of great public utility and convenience, but also serve in some measure, large or small, in the prevention of disease.

It is hoped that a connected history may thereby be secured of all sanitary improvements of a public character in all parts of the State, from year to year, and the gradual awakening of the citizens of the different towns to the necessity of sanitary public measures shown, and also whatever intelligent appreciation of such necessity, and whatever public spirit in existence in the towns there may be, as manifested by the readiness with which needed sanitary measures are adopted.

For this purpose a circular has been sent, at the close of every year, to each town clerk in the State, wherein various questions are submitted in relation to the proceedings of the respective town authorities, in the direction of general sanitation, during the preceding year.

The following is the form of circular sent at close of the year 1885:

### CIRCULAR S.

OFFICE OF SECRETARY OF THE STATE BOARD OF HEALTH,

*To the Town Clerk:*

PROVIDENCE, Jan. 1, 1886.

It is, by statute law, made the duty of the Secretary of the State Board of Health, to make inquiries of the clerks of local boards of health, (town councils) in regard to the general health and sanitary condition of the towns, and also in regard to measures taken for the improvement of the same.

The law reads as follows :

### Public Statutes, Chapter 83.

Sec. 6. The secretary of the said board shall make inquiry from time to time, of the clerks of town and local boards of health and PRACTICING PHYSICIANS, in relation to the prevalence of any disease, or knowledge of any known or generally believed source of disease, or causes of general ill health, and also in relation to the proceedings of the said boards of health, in respect to acts for the promotion and protection of the public health, and also in relation to diseases among domestic animals in their several towns and localities respectively, and the said clerks of town and local boards of health, and the said practicing physicians, shall give such information, in reply to said inquiries, of such facts and circumstances as have come to their knowledge.

*The Secretary therefore makes the following inquiries :*

1. Has there been, within your knowledge, any very fatal or very serious disease, that has prevailed largely in your town during the last year ?

2. Have there been any cases of small pox in your town during the last year? If any, how many cases and how many deaths have come to your knowledge? Do you know the source from whence derived ?

3. Has any widely spread or largely fatal disease occurred among domestic animals in your town during the year ? If any, please give name of disease or diseases, locality and time of year when prevalent.

4. Has any work for the promotion of public health been contemplated, commenced, or completed in your town, by the proper authorities of the town during the year ? If any, please state what.

5. If by introduction of water for general use, please state from what source, how large the supply, and what proportion of the population by estimation, were supplied with the same at the end of the year.

6. If by sewerage, state what the aggregate length of sewers, whether of iron or brick, where emptying, and what proportion of population had drainage connection with them at the end of the year.

7. If by abatement of nuisances, or by improvement in heating or ventilating public buildings, halls, school houses, &c., or by drainage of water-soaked ground around and beneath houses, or by compelling the removal of excreta, garbage, house refuse, &c., or for any other purpose. Please give terms and date of enactment of town ordinance, or send copy of same, and also state how far the ordinances have been enforced.

8. Has your town any legal board of health beside the town council? If so, please give the names of the officers of the same.

9. Do you have health officers in your town, responsible to town council, instead of an organized board of health? If so, please give names of said officers.

10. Has gratuitous vaccination been provided in your town during the past year.

Very respectfully,

CHAS. H. FISHER,

*Sec. of State Board of Health.*

N. B. The town clerk should charge a remunerative fee for replying to the above circular, and present to the town council, it being a service required by law.

## REPORTS FROM TOWN CLERKS

*In relation to the prevalence of disease, and of legal proceedings in regard to public sanitary improvements, and the promotion of public health, &c.*

### BRISTOL COUNTY.

#### BARRINGTON.

1. No very fatal disease has prevailed largely during the last year.
2. No cases of small pox.
3. No largely fatal disease occurred among domestic animals.
4. No work for the promotion of public health has been contemplated or

completed by the authorities during the year, except the introduction of water for domestic purposes next spring.

6. No sewers.

7. Nothing to report in the way of new ordinances in abatement of nuisances, or by drainage or the removal of excreta, house refuse, &c.

8. No legal board of health beside the town council.

9. No health officers appointed.

10. Gratuitous vaccination has been provided during the past year. Dr. Battey vaccinated 120 persons and the town clerk 40 persons, 160 in all—population 1200.

11. The Warren undertaker, (Buffington), is very prompt. He attends most all the funerals.

M. H. Wood.

### BRISTOL.

1. No very fatal or very serious disease has prevailed largely.

2. No cases of small pox.

3. No disease of consequence among domestic animals.

4. No particular work for the promotion of public health contemplated by the authorities of the town during the year.

5. Water was introduced in 1883, from the Kickamuit river; supply is abundant. The introduction of the same into residences is on the increase.

6. No sewers of any account. The matter is being agitated at the present time, by holding public meetings.

7. No new ordinances in abatement of nuisances, &c. See ordinance printed in Annual Report of State Board of Health, 1883, (for the suppression and prevention of nuisances); also by-laws relating to nuisances in the town of Bristol, same report.

8. No legal board of health beside the town council.

9. Lyman B. Bosworth, health officer.

10. Gratuitous vaccination has been provided during the year. About one-twelfth of the population of the town was vaccinated.

11. The undertakers in this town comply strictly with the law.

H. F. Bennett.

### WARREN.

1. No very fatal disease has prevailed largely.

3. No diseases of consequence among domestic animals.

4. No special work for the promotion of public health was contemplated, or completed in the town, by the authorities during 1885. Water was introduced into the town by a private corporation in 1882.

5. About one-fourth of the population is supplied therewith.

6. There are probably about 5000 feet of sewers in the town, of which about 3700 feet were laid during the past year.

7. No new ordinances in abatement of nuisances, &c.

8. No legal board of health beside the town council.

9. Health officers not appointed.

10. Gratuitous vaccination has been provided. About one-sixth of the population was gratuitously vaccinated. This is probably the largest number gratuitously vaccinated in any one year.

11. Undertakers have promptly sent in their returns of death.

CHAS. B. MASON.

## KENT COUNTY.

### COVENTRY.

1. No very fatal disease has prevailed.

3. No fatal disease among domestic animals.

4. No particular work has been done or contemplated by the authorities.

6. No sewers for the benefit of the public have been constructed, other than the drainage of the public highways.

7. No ordinances for the abatement of nuisances have been enacted.

8. Doctors James B. Tillinghast, John Winsor, G. Louis Wood and Frank B. Smith, are a special board of health.

9. Health officers as above.

10. Gratuitous vaccination has been provided during the year. About 350 in all, a large portion having been previously vaccinated within seven years.

11. Undertakers have promptly sent in their returns of death as a general thing.

S. W. GRIFFIN.

### WEST GREENWICH.

1. No very fatal disease has prevailed.

3. No largely fatal disease among domestic animals.

4. No unusual work for the promotion of public health.

7. No new ordinances in abatement of nuisances, &c.

8. No legal board of health beside the town council.

9. Health officers have not been appointed.

10. Gratuitous vaccination was not provided in this town during the past year.

11. For the past three months the undertakers' returns have been all sent in so far as I know.

WM. N. SWEET.

### WARWICK.

1. No very fatal disease prevailed largely.

2. One case of varioloid. No death. Source not known.

3. No fatal disease occurred largely among domestic animals.

4. No new work for the promotion of public health was completed in the town, by the authorities during the year.

5. No water service.

6. No public sewers.

7. No new ordinances in abatement of nuisances, &c.

8. No legal board of health beside the town council.

9. Dr. Albert G. Sprague, health officer, River Point.

10. Gratuitous vaccination was provided in this town during the past year. The proportion of the population vaccinated was about one-fortieth.

11. Generally undertakers have promptly sent in their returns of death. Those who are not so prompt are Joseph Lamoine, River Point; Carroll Brothers, Phenix.

RINALDO HOYLE.

## NEWPORT COUNTY.

### JAMESTOWN.

1. No disease has prevailed largely in this town during the last year.

3. No largely fatal disease among domestic animals.

4. Nothing new for the promotion of public health, by the town authorities during the year.

5. No water service for general use.

6. No public sewers. Two private sewers, one from the Gardner House, the other from the Bay View House; length about 300 feet in each case, no connections.

7. No new ordinances in abatement of nuisances, &c., except by the resolution appended.

8. No legal board of health beside the town council.

9. John E. Watson, health officer.

10. Gratuitous vaccination was provided in this town during the past year. The proportion of the population vaccinated was about one-eighth, nearly all children.

11. Undertakers have promptly sent in their returns of death.

J. E. WATSON.

At a town council holden in Jamestown, R. I., August 29th, 1885, the following petition was presented :

"I respectfully call your attention to the intolerable smell from sewer gas at the foot of the main street by the ferry, at low tide, and urge prompt investigation as to the cause, and advise that proper steps be taken to remedy it, as in my opinion it is prejudical to the health of every one residing in the immediate neighborhood.

Yours very truly,
George McClellan, M. D."

We, the undersigned, fully agree with the professional opinion of Dr. George McClellan regarding the injurious escape of sewer gas near the Ferry Wharf at Jamestown, R. I.

Signed,
Jno. P. Wetherell, and thirteen others.

*Voted,* That the health officer be instructed to request the owners of the sewers from the Gardner and Bay View Houses, to extend them far enough to abate the nuisance; also to request Wm. H. Knowles to cover the filth in the basin between his wharves with sand or gravel; if said parties refuse, then to proceed and have it done forthwith and present the bill to the owners.

The basin was covered with sand at an expense of $10.75, and *the town* paid it. Nothing more has been done.

J. E. Watson, Town Clerk,
per M. J. W.

## MIDDLETOWN.

1. In December, 1885, in one locality there were three deaths within a few days from diphtheria. Enquiry as to cause thus far has received no satisfactory answer. In the same locality there were deaths from the same disease in the year 1884.

2. In the year 1885, there were not any deaths from small pox in this town.

3. Have not learned of any general disease among domestic animals in this town during the year 1885.

4. An ordinance was enacted in February, 1885, looking towards the more stringent regulation of the disposition of house swill and offal, brought from the adjoining city of Newport.

5. No water service for general use.

7. The new ordinance for the preservation of the health in this town, passed February 16, 1885, a copy of which is herewith forwarded, has not been enforced so vigorously as it might have been, and has not resulted in relieving the people of the town from annoyance in the disposal of swill to that extent anticipated.

8. Middletown has no legal board of health aside from the town council.

9. James E. Wyatt and John D. Blair were appointed health officers in April, 1885. These officers did nothing save to make an occasional inspection of the premises of the swill vendors. They have made no prosecutions whatever.

10. Dr. C. Frank Barker was employed by the town council, in October, 1885, to vaccinate the people of this town. Notice was given to the people of the various school districts to come to their respective school-houses for vaccination. The doctor made no return to this office of persons vaccinated. Probably less than one-fifth of the population were vaccinated.

11. The undertakers of Newport have made returns of deaths occurring in this town attended to by them, a little more punctually than in some years. Few returns of deaths are made before burial of the deceased person.

ALBERT L. CHASE.

## TOWN OF MIDDLETOWN.

### AN ORDINANCE FOR THE PRESERVATION OF THE PUBLIC HEALTH IN THE TOWN OF MIDDLETOWN.

(Passed and enacted February 16, 1885.)

*It is ordained by the Town Council of the Town of Middletown as follows, to wit:*

SECTION 1. No person shall hereafter within the limits of the said town of Middletown, between the first day of March and the first day of December, in any year, dig over or open any compost or manure heap, in which swill or offal brought from without the said town, shall have been, or shall be a component part of the said compost or manure heap, nor shall any person within the said limits, cart or remove the same within the time aforesaid, or spread the same upon any land within the said limits.

SECTION 2. No person within the times mentioned in Section 1 of this ordinance, shall within the limits of said town of Middletown, spread any swill or house offal brought from without the said town upon the land therein, nor shall any person deposit any such swill or house offal within the limits of the said town of Middletown, without forthwith burying the same, so that it shall not be permitted to taint the atmosphere at the place, and which passes over and from the place, at which such swill or offal was buried.

SECTION 3. Any person violating any provision of this ordinance shall be fined twenty dollars, or be imprisoned not exceeding ten days.

SECTION 4. This ordinance shall take effect on the first day of April, A. D. 1885.

A true copy from the record.

Attest :

ALBERT L. CHASE,
Council Clerk.

### LITTLE COMPTON.

1. A good many cases of measles some of which terminated fatally.
2. No small pox in this town during the year.
3. No largely fatal disease occurred among domestic animals.

4. The necessity of measures for the promotion of public health has not been apparent to the town authorities during the year.

7. No new ordinances in abatement of nuisances, &c.

8. No legal board of health beside the town council.

9. No health officers appointed.

10. Gratuitous vaccination has not been provided in this town during the past year.

11. Undertakers have promptly sent in their returns of death.

F. R. Brownell.

### PORTSMOUTH.

1. There was no very serious disease that prevailed largely in this town during the last year.

2. No cases of small pox.

3. No largely fatal disease occurred among domestic animals.

4. No unusual work for the promotion of public health was contemplated.

5. We have no water service for general use.

8. We have no legal board of health beside the town council.

9. No health officers appointed.

10. Gratuitous vaccination has been provided, and about one-sixteenth of the population were vaccinated.

11. Undertakers have sent in their returns quite promptly.

P. B. Chase.

### TIVERTON.

1. No very fatal disease has prevailed largely.

3. No largely fatal disease occurred among domestic animals.

4. No action has been taken by the town council.

5. No introduction or extension of water service for general use.

7. No new ordinances in abatement of nuisances, or for sanitary improvement.

8. No legal board of health beside the town council.

9. The names of health officers are Peleg D. Humphrey, Christopher White, Samuel E. Borden, town council.

10. Gratuitous vaccination has been provided during the year. The proportion of the population vaccinated was about one thirtieth.

11. Generally undertakers have promptly sent in their returns of death.

J. T. Cook.

### CITY OF NEWPORT.

2. No cases of small pox in this city during the last year.

4. The project for a complete system of sewerage has been *contemplated* for

several years; none has been *completed*. Small sewers have been constructed during the year in various localities, which can be utilized in a general plan.

5. Water was introduced some years ago. There has been no general extension of the service, the city being already well supplied with mains. There are 1800 services now, probably one-half the population at least, is supplied.

6. Aggregate length of sewers built during the year, 16,370 feet; 228 permits for connections issued during the year. Cannot form a reasonable estimate of proportion of population connected owing to lack of record of permits in former years.

7. See ordinances hereto appended.

8. Newport city has a board of health. Names of officers as follows: Dr. C. F. Barker, President; Dr. Wm. C. Rives, Jr., Secretary. Executive officer, Clarence Greason.

9. Health officer, Capt. Wm. F. Townsend.

10. Gratuitous vaccination was provided in this city during the past year. The number vaccinated was about 250. About two years ago there was a general house to house vaccination made as complete as practicable.

11. Have not known of any neglect on part of undertakers the past year.

## THE CITY OF NEWPORT.

### AN ORDINANCE TO APPOINT A BOARD OF HEALTH AND CONFER CERTAIN POWERS AND DUTIES THEREON.

[Passed February 6, 1885.]

*It is ordained by the City Council of the city of Newport as follows:*

SECTION 1. Such three practising physicians and two other citizens as the city council of the city of Newport shall elect, are hereby appointed a board of health of said city from and after the passage hereof until the first Monday in January, A. D. 1886.

SECTION 2. The members of said board shall qualify in the same manner as all other city officers.

SECTION 3. The said board shall elect from its own members a president and a secretary.

SECTION 4. The duties of said secretary shall be to keep a record of the proceedings at all the meetings of said board, to keep all the records of the board, and to prepare and compile all such reports and statistics as the board may from time to time direct or have in charge.

SECTION 5. The said board shall, over the signature of its president and secretary, recommend to the city council as soon as may be, and from time to time as may be necessary, the name of some suitable person who, upon the appointment of the city council, shall be the executive officer of said board during the pleasure and subject at all times to the orders thereof and shall receive compensation at the rate of eight hundred dollars a year.

SECTION 6. The said board shall, as soon as may be, draw up a series of regulations pertaining to the public health of the city of Newport and present the same to the board of aldermen thereof at its next or any subsequent meeting for consideration, and upon the approval and enactment of said regulations either in whole, or in part, or with amendments by the board of aldermen, the said regulations, or such of them as have been enacted, shall go into effect in the same manner as all other regulations of the board of aldermen acting as a board of health; and the board hereby appointed may from time to time propose such further regulations as they may deem proper, which upon being presented to and enacted by the board of aldermen as aforesaid shall go into effect as afore said.

SECTION 7. The board hereby appointed shall make all proper inquiries into the condition of the public health of the city of Newport and into all things in said city which may in any way affect the health thereof; it shall prepare and compile all such statistics relating to the health of said city as it may deem proper; it shall see to the enforcement of all laws pertaining to the health of said city, as well as the regulations originating with said board as those of the board of aldermen acting as a board of health; it shall receive and consider all complaints of alleged nuisances in said city or of breaches of any of the aforesaid laws and all complaints received by the board or by any member thereof, shall be at once communicated to the executive officer who upon receipt thereof, or upon any other information of such nuisances or breaches of said laws, shall inquire into the truth or falsity of such complaint or information and shall, as the case may require report the result of his inquiries to the board at its next meeting (and for this purpose he may call a special meeting of the board) or take such legal steps in the premises as may be necessary and proper.

SECTION 8. The said executive officer and the inspector of nuisanees of the city of Newport shall be at all times subject to the direction of said board.

SECTION 9. The executive officer, the inspector of nuisances and all the members of the board hereby appointed, shall, in pursuance of any complaint or information of nuisances or breaches of the law as aforesaid, have power to enter the house and premises of any person, to make inspection thereof and to do all things which may in law be necessary and proper, at all times between the hours of nine o'clock A. M. and five o'clock P. M.

SECTION 10. The said board shall meet from time to time in their discretion, or at the call of the president thereof, or at the call of the executive officer as aforesaid, or at the call of the secretary upon the written request of any two members; and three members of the board shall constitute a quorum for the transaction of all business. The place of meeting of the board shall be the common council chamber of the city of Newport.

SECTION 11. All vacancies in the membership of the board, by resignation or otherwise, shall be filled by appointment by the city council.

SECTION 12. The executive officer and inspector of nuisances shall keep minute books in which they shall make notes of all reports, orders and inspections made to and by them with the results thereof and their proceedings thereon, which books shall, at the expiration of their terms of office and at least once in every three months, be turned over to the secretary who shall keep the same among the records of the board.

SECTION 13. The board shall from time to time in its discretion, and at least once in each month, report to the board of aldermen the condition of the public health of the city of Newport with such facts and recommendations in regard thereto or in regard to the operation of the board hereby appointed, as it may deem proper.

SECTION 14. The members of the board hereby appointed shall serve without compensation; provided however that they shall be paid such actual necessary expenses incurred in the performance of their duties as the city council of the city of Newport may from time to time allow.

SECTION 15. This ordinance shall take effect immediately.

A true copy. Attest:

WILLIAM G. STEVENS,
City Clerk.

### AN ORDINANCE IN ADDITION TO CHAPTER 40 OF THE ORDINANCE ENTITLED "AN ORDINANCE COMPRISING THE ORDINANCES OF THE CITY OF NEWPORT."

[Passed February 6, 1885.]

*It is ordained by the City Council of the city of Newport, as follows:*

SECTION 1. No keeper of a shop for the purchase, sale, or barter, of junk, old metal, or any second hand articles, shall put, keep, or store any such junk, or any such second hand articles, consisting of rags, wool, hair, shavings, carpeting, matting, cloth or clothing, in any room, building or place adjoining to or connected with or inside of a dwelling house; and whoever shall violate this ordinance shall be fined for every offence not less than five dollars nor more than twenty dollars.

SECTION 2. This ordinance shall take effect immediately.

A true copy. Attest:

WILLIAM G. STEVENS,
City Clerk.

### AN ORDINANCE IN ADDITION TO CHAPTER 22 OF AN ORDINANCE ENTITLED, "AN ORDINANCE COMPRISING THE ORDINANCES OF THE CITY OF NEWPORT."

[Passed July 7, 1885.]

*It is ordained by the City Council of the city of Newport, as follows:*

SECTION 1. No teacher, pupil or other person shall enter or attend any public school in this city if he or she resides, or has within four weeks of such entry or attendance, resided in any house in which a case of small pox, varioloid, scarlet fever, diphtheria or measles has commenced within the same four weeks.

SECTION 2. This ordinance shall take effect immediately; and every person violating it shall be fined five dollars for each offence.

A true copy. Attest:

WILLIAM G. STEVENS,
City Clerk.

## AN ORDINANCE AUTHORIZING CERTAIN EXPENDITURES BY THE BOARD OF HEALTH.

[Passed July 7, 1885.]

*It is ordained by the City Council of the city of Newport, as follows:*

SECTION 1. The board of health appointed by the city council shall be and hereby is authorized and empowered to expend in and about the performance and accomplishment of the duties and objects of said board, such sums of money as may be found requisite, not exceeding one thousand dollars in any one municipal year; and provided always that all such expenditures shall be approved by the committee on finance of the city council before payment thereof from the city treasury.

SECTION 2. This ordinance shall take effect immediately.

A true copy. Attest:

WILLIAM G. STEVENS.
City Clerk.

## *Annual Report of the Sanitary Protection Association of Newport, R. I., for 1884–5.*

The following report was read at the annual meeting:

Since the publication of the last annual report, it has been a source of great satisfaction to the members of the association and to many others to whom the sanitary condition of the city was a matter of concern, that the city council has seen fit to establish a separate board of health.

From the fear of Asiatic Cholera visiting the country during the present year, which thus far has happily not been realized, unusual attention, it is well known, has been directed throughout the country, towards measures to be employed to guard against outbreaks of the disease and to impress everywhere upon state and local authorities and communities in general, the necessity of taking timely precautions. Among the chief measures advised, the establishment of local boards of health has been especially insisted upon. At the meeting of the American Public Health Association at St. Louis, the creation of such boards was held to be most desirable, and the National Board of Health, in a circular addressed to the governors of the several States, strongly urged them to endeavor to promote their formation. In Rhode Island, the State Board, in a paper entitled "Suggestions in relation to Asiatic Cholera," made similar recommendations and in the autumn of the past year a special circular was also issued by a committee of this association, earnestly calling upon the citizens of Newport to endeavor to provide all possible means to avert the occurrence of an epidemic during the present summer.

An advisory board was at first appointed, but subsequently, after a petition signed by many influential citizens and summer residents had been laid before the city council, the present board of health was established by an ordinance passed February 6th, the provisions of which, if thoroughly effective work is to be accomplished in future years, may yet require alteration. The care of the streets and construction of public sewers remain still under the immediate control of the city council and city engineer. Much work of value has been already done, but statements of the degree of improvement in the condition of the city have been exaggerated, since not only had the attention of the board to be first directed to many preliminary matters, especially to the preparation of sanitary regulations and ordinances requiring the approval of the authorities and without which its powers were very limited, but it must be remembered also that many of the reforms that are desirable need time for their accomplishment, and that the ill-constructed cesspools, untrapped and imperfect pipes and drains and other nuisances, some of a very injurious nature, which are to be found in no small number in Newport, are not to be got rid of in a few weeks or even months with the means at the disposal of the board.

In fact there is reason to be encouraged, not so much at what has already been done, as that a decided step has been taken in the direction of sanitary progress and towards the enforcement of sanitary laws, through which it is to be hoped the condition of the city will now be steadily improved. Since the appointment of the board, the antagonism hitherto felt by some has in great measure given place to a feeling of relief at the cessation of the controversy in regard to it, and though it cannot expect not to meet with opposition, it is safe to say that there are comparatively few who are still inclined to look upon it with disfavor.

A disposition to accede to its wishes has been shown, and the board of aldermen has lately passed, with slight modifications, the rules and regulations thus far submitted to them. As yet, however, no place has been designated for the reception of those cases of infectious disease which cannot otherwise be properly isolated, and this delay is a continual source of danger.

During the past year the work upon the system of sewerage for the city has been progressing, permission having been granted by Congress to carry the outlet through the breakwater; and for full details the elaborate report of the city engineer should be consulted. The outlet of the main sewer in Marsh street at present discharges its contents at a point but a short distance from the shore and is consequently a cause of annoyance to the dwellers upon Washington street and others in that vicinity.

The Water Works Company has not yet succeeded in improving the quality of the city water, the last analysis made in May for this Association showing that it contains an undesirable amount of organic matter. There will probably be little further improvement until some very radical measures are taken for removing vegetable matter from Easton's pond, while it must be admitted that this is a work of considerable difficulty.

Although the number of private inspections made for the Association during the year has not been very large, the best methods of rendering these as accurate as possible have received much consideration at the meetings, as well as by a committee specially appointed for the purpose. The importance and value of these examinations lately received illustration in the case of a house on Bellevue avenue, apparently in excellent sanitary condition, but in which, on further investigation, three untrapped soil pipes were found entering a loose cess-pool situated in close proximity to the house. This condition of things was promptly remedied.

It has been considered advisable to raise the price of an inspection, the sum which has been hitherto paid being a totally inadequate compensation for the time and trouble required. An office has been secured in a central position, and the library, which now contains many valuable works, is thus made more accessible to members.

It may be well to again call the attention of all those who desire to keep their premises in good order to the very valuable suggestions contained in Circular No. 2 of the Association, copies of which may be obtained at the office or will be gladly sent to any one making application. Besides its efforts for the good of Newport, the Association has also shown an interest in health matters not merely local, and has exerted itself in behalf of an appropriation for the National Board of Health and contributed to the fund for continuing the investigations of the committee on disinfectants of the American Public Health Association.

The first president of this Association and one of its founders, Hon. Samuel Powel, died after a lingering illness on the 5th of March last. Mr. Powel had always shown much public spirit both when occupying a position in the State Senate and in the capacity of private citizen, and took a lively interest in all means for increasing the welfare and prosperity of Newport, where he lived for many years. He was also distinguished for his scientific attainments, which were widely known. His influence in the community was very great, and his loss is deeply regretted.

In casting a retrospective glance over the past history of the Association, it is obvious that up to the present time it has met with much opposition and even ill-feeling, but, notwithstanding, it has steadily persevered in trying to impress upon citizens and house-owners the fact that conditions have existed, and do still exist, which imperatively demand attention and cannot be disregarded; and it has persistently advocated the formation of a properly constituted board of health as the most important means towards accomplishing their removal. No one can doubt that Newport is naturally an unusually healthful place, but the most healthful place imaginable may be rendered unhealthful through neglect of proper precautions.

Now that the board of health has assumed its duties, the impression should not be allowed to prevail that there is no further need of the Sanitary Protection Association. Most of the matters in regard to which it has heretofore endeavored to exert some influence upon the city authorities do indeed naturally come within the province of the board of health, but the Association is, consequently, enabled to occupy the position which it was originally intended to fill—that of aiding the board in its efforts made for the health of the community, while at the same time it continues to care for the premises of its members and seeks to instruct them in many points of sanitary knowledge in regard to which there still exists a widespread apathy and indifference. The Sanitary Protection Association desires to be of every assistance in its power to the board of health in its attempts to solve the not always easy problems which come before it, and has already offered free access to the valuable notes on the condition of the city in its possession and will gladly allow the free use of its library. For the rest, it is content to leave matters in the hands of the board, trusting that occasional requests or suggestions made to it or to the city council may not be disregarded or prove unacceptable; and as regards itself, it hopes that in future it may not be called upon to renew its warnings, but that in its now more private capacity its influence may be as great among its own individual members as it has reason to believe it has been during the past, in creating a public sentiment in favor of the important measures which the city has adopted.

William C. Rives, Jr., M. D.,
Recording Secretary.

Newport, July 14, 1885.

## PROVIDENCE COUNTY.

### BURRILLVILLE.

1. No very fatal disease has prevailed largely.

3. No largely fatal disease occurred among domestic animals.

4. Town council appointed a health officer, who has been quite active in requiring cleanliness about the various tenements in town.

5. Not any water service for general use.

6. No public sewerage.

7. The town council have not adopted any new ordinances in abatement of nuisances, or other sanitary improvements.

8. No legal board of health beside the town council.

9. The name of the health officer of this town is George O. Fairfield.

10. Gratuitous vaccination was provided in this town during the past year. The proportion of the population vaccinated was about 1000, or one-fifth of the population.

11. Undertakers have promptly sent in their returns of death.

Alvah Mowry.

### CUMBERLAND.

1. Have not known of any very fatal disease that has prevailed largely.

2. There was one case of small pox in this town during the last year. No death. Do not know the source from whence derived.

3. No largely fatal disease occurred among domestic animals.

4. The council has not provided any new work for the promotion of public health.

6. No public sewerage.

7. No new ordinances in abatement of nuisances, &c.

8. No legal board of health beside the town council.

9. The health officers of this town are George B. Haines, M. D., Thomas W. Hague, M. D., James J. Smith, M. D.

10. Gratuitous vaccination was provided in this town during the past year. The proportion of the population vaccinated was nearly one-half.

11. Undertakers have promptly sent in their returns of death.

HORACE A. FOLLETT.

### FOSTER.

1. No very fatal disease has prevailed largely in this town during the last year.

3. No largely fatal disease occurred among domestic animals.

7. The council passed no new ordinances in abatement of nuisances, or other improvements of a sanitary kind.

8. No legal board of health beside the town council.

9. Dr. Henry Arnold, Health Officer.

10. Gratuitous vaccination was not provided in this town during the past year.

11. Undertakers have promptly sent in their returns of death.

LESTER HOWARD.

### GLOCESTER.

1. There was no very fatal or serious disease that prevailed largely in this town during the last year.

3. No largely fatal disease occurred among domestic animals.

7. There were no new ordinances in abatement of nuisances, &c.

8. No legal board of health beside the town council.

9. Richard Barnes, Health Officer.

10. Gratuitous vaccination was provided in this town during the past year. The proportion of the population was about one-fourth.

11. Undertakers have promptly sent in their returns of death.

CHAS. W. FARNUM.

### JOHNSTON.

1. No very serious disease prevailed largely in this town during the last year to my knowledge.

2. No cases of small pox in the town during the year.

3. There was no largely fatal disease among domestic animals in the town during the year.

4. No work for the promotion of public health, except by health officers. There were precautions taken by the board of health for prevention of disease, which have been very thorough in the thickly settled portion of the town.

5. Some extension of water service for general use. Probably about one-half of the population of the town are takers of Pawtuxet water, or can become so. The water mains are extended westerly to the base of Neutaconkanut Hill, and also to Manton, northerly.

6. No public sewerage.

7. No new ordinances in abatement of nuisances, &c. The health officers have enforced the town ordinances in relation to nuisances in every case of violation of same coming to their knowledge, and during the past summer have been diligent in causing the removal of house refuse, &c., on premises where the same had collected, thereby promoting the general health of the inhabitants of the thickly populated portion of the town.

8. No legal board of health beside the town council.

9. Health Officers—Charles A. Barnard, M. D.; Elmer B. Eddy, M. D.; Thomas C. Lawton, M. D.; L. D. McLean, M. D.; Wm. A. Carroll.

10. Gratuitous vaccination was provided in this town during the past year. One thousand two hundred and thirty-two persons were vaccinated by order of the town council by Drs. Geo. R. Fisher, Elmer S. Fisk and Eugene H. Hamburg. Of that number it was necessary to re-vaccinate only thirty-one persons. Bovine virus was used, and obtained from the farm near Chelsea, Mass., the work being under the supervision and able management of Mr. Simon S. Page, vaccination committee, to whom much credit is due.

WM. F. KING.

## LINCOLN.

1. Did not hear of any very fatal disease that prevailed largely in this town during the past year.

2. There was one case of small pox during the last year—a child. No deaths Took it from its mother, who came from Vermont.

4. None, except by vaccinating a large number of children and others.

5. Some small extension of water service for general use; about nine-tenths of the population supplied.

6. No sewerage system.

7. The ordinances of the town are in the hands of a committee to be revised; will send copy when completed.

8. No legal board of health beside the town council.

9. Samuel L. Pendergrass, Health Officer.

10. Gratuitous vaccination was provided in this town during the past year. The proportion of the population vaccinated was perhaps one-third.

11. Undertakers have promptly sent in their returns of death.

WM. H. GOODING.

### NORTH PROVIDENCE.

1. No very fatal disease has prevailed largely during the year to my knowledge.

3. None among domestic animals.

4. Nothing new for the promotion of public health, except by vaccination.

5. No water service for general use in this town.

6. We have no public sewerage.

7. No new ordinances in abatement of nuisances, or other improvements.

8. No legal board of health beside the town council.

9. Henry F. Brown, Health Officer.

10. Gratuitous vaccination was provided during the past year. There has been one hundred and sixty-eight vaccinated gratuitously this year (1885). Population about 1500.

11. Undertakers do not promptly send in their returns of death. In taking the census I find quite a number that had not been returned.

THOMAS H. ANGELL.

### NORTH SMITHFIELD.

1. I do not know of any very fatal disease that has prevailed largely in this town during the last year.

3. No widely spread disease occurred among domestic animals during the year; but cholera among swine has been quite prevalent.

4. Nothing new for the promotion of public health.

5. No water service for general use.

8. No legal board of health beside the town council.

9. Joshua Wardle, Health Officer.

10. Gratuitous vaccination has been provided during the past year.

11. No undertakers located in this town, and those outside have, as far as they could, complied with the law.

BYRON A. ANDREWS.

### SCITUATE.

1. No disease has prevailed largely during the year to my knowledge.

3. No largely fatal disease occurred among domestic animals.

7. No new ordinances in abatement of nuisances, &c.

8. No legal board of health beside the town council.

9. Dr. Walter J. Smith, Health Officer.

10. Gratuitous vaccination was provided during the past year. Two hundred and forty-five were vaccinated. Population, 3,600.

D. H. REMINGTON.

### SMITHFIELD.

1. Do not know of any very fatal disease that has prevailed largely in this town during the last year.

3. No largely fatal disease has occurred among domestic animals.

4. A health officer has been appointed, who has inspected vaults, &c., throughout the town, caused dead animals to be properly buried and one party to remove an offensive business to a more suitable location.

7. No new ordinances in abatement of nuisances, &c.

8. No legal board of health beside the town council.

9. Walker A. Medbury, Health Officer.

10. Gratuitous vaccination has been provided during the past year. Six hundred and seventy-nine persons were vaccinated, which is about one-quarter of the population.

11. Undertakers have sent in their returns more promptly than formerly.

OSCAR A. TOBEY.

### PAWTUCKET.

1. There has been no unusual sickness of a dangerous character during the year.

3. There has been no serious disease affecting large numbers of domestic animals.

4. The questions of water supply, sewerage, street cleaning, cesspool and privy cleaning and other sanitary improvements, have had a good deal of attention on the part of the town council and the health officers.

5. See Report of Pawtucket Water Commissioners on subsequent pages.

6. See Report of Committee on Sewers on subsequent pages.

8. No legal board of health during 1885 except the town council.

9. Health Officers—George H. Stanley, M. D., Seabury S. Tompkins, John Brierly, Edward Card.

10. Gratuitous vaccination has been provided.

11. Undertakers have generally been very prompt during the year in making returns of death.

ALDEN W. SIBLEY.

### WOONSOCKET.

1. I have made due inquiry and can learn of none.

2. No cases of small pox.

3. There has been no largely fatal disease among domestic animals in this town during the year.

4. No work for the promotion of public health, except that the town now owns the water works and have extended the same somewhat the last year.

5. By the extension of water service for general use, about one-quarter part of the population is supplied, as near as can be estimated by the superintendent of water works.

6. No public sewerage.

7. Ordinances in relation to abatement of nuisances, &c., have been revised.

8. No legal board of health beside the town council.

9. Dr. George W. Jenckes, Health Officer.

10. Gratuitous vaccination has been provided in this town during the past year. About 3,300 have been vaccinated during the year, or about one-fifth part of the population.

11. The undertakers make returns not always as promptly as desired, but I get them all.

ALBERT E. GREENE.

*It is ordained by the Town Council of the Town of Woonsocket as follows:*

## CHAPTER I.

### ANIMALS.

SECTION 1. No owner, or person having the care of any sheep, swine, horses, oxen, cows or other grazing animals, shall permit or suffer the same to go at large, or to graze on any street, lane or alley, common, square, or other public place within the town.

SEC. 2. No person shall keep or suffer to be kept any swine within the compact part of the town, or within one hundred feet of any dwelling house, at any place in the town outside the compact part thereof. Provided, however, that swine may be kept in any place, outside the compact part of the town, where the health officer shall deem it suitable and fit for that purpose.

SEC. 3. No person shall throw, place or put, or cause to be thrown, placed or put, the body or remains of any dead animal into any of the ponds, streams or water within the limits of said town, or shall leave any such body or remains of any such animal to decay on the surface of the ground or insufficiently buried therein.

SEC. 4. Every person violating any of the provisions of this chapter shall pay a fine of not less than two nor more than twenty dollars.

## CHAPTER XVIII.

### HEALTH OFFICER.

SECTION 1. The health officer of the town shall be paid his necessary expenses, and such sum for his services as the council shall determine.

SEC. 2. It shall be the duty of the health officer to examine into the state and condition of every place and portion of said town, when such officer shall suspect or be informed that there exists any matter or thing which is or may become injurious to the health of the inhabitants thereof.

## CHAPTER XXXIII.

### SINKS, CESSPOOLS AND PRIVY-VAULTS.

SECTION 1. Every person who shall at any time whatsoever empty into any street, highway, gangway or open way, over which the inhabitants of this town pass, or may freely pass, within the limits of the town, any part of the contents of any sink, cesspool or privy-vault, shall be fined not less than five dollars nor more than twenty dollars.

SEC. 2. No person or persons shall carry into or through any public street, or highway, any part of the contents of any sink, cesspool or privy-vault, in any cart, wagon or other vehicle whatever, unless the same shall be removed by means of an air-tight apparatus and in such a manner as shall prevent entirely the escape of any noxious or offensive odor therefrom.

SEC. 3. From the fifteenth day of May until the fifteenth day of October in each year, no person shall remove any portion of the contents of any sink, cesspool or privy-vault therefrom, unless such contents are previously disinfected, so that the removal thereof will cause no offensive odor; and every owner, occupant, agent or other person having charge of the land on which any privy-vault, sink or cess-pool is located, shall from time to time disinfect the contents thereof, and keep such privy-vault, sink or cesspool free from all offensive odors.

SEC. 4. No person or persons shall at any time whatsoever carry into or through any public street or highway any part of the contents of any sink, cesspool or privy-vault, in any cart, wagon or other vehicle which shall not be effectually covered and water tight, and kept clean and well painted on the outer surface.

SEC. 5. No cart, wagon or other vehicle whatever, having therein any part of the contents of any sink, cesspool or privy-vault, shall be permitted to stand (except while loading) in any such street or highway.

SEC. 6. In case of violation of any of the provisions of the last four sections of this ordinance, the owner or owners, driver or drivers of any such cart, wagon or other vehicle, shall be fined not less than two dollars nor more than twenty dollars.

SEC. 7. Every person who shall neglect or refuse to disinfect the contents of any privy-vault, so as to remove all offensive odors therefrom, within thirty-six hours after receiving notice so to do from any health officer, shall pay the fine mentioned in section six of this chapter.

### PROVIDENCE CITY.

1. No unusual prevalence of very fatal disease.
3. No unusual disease among domestic animals.

4. A very large amount of work has been done in promotion of the public health, under the direction of the Superintendent of Health, as per his Report. In relation to malarial diseases he says :

"Several large pond holes in the western part of the ninth ward, which were undoubtedly breeding places for this poison, have during the year been filled, resulting in a very great decrease in the chills and fever which have for several years afflicted nearly one-half of the population living in the immediate vicinity. In the eastern part of the ninth ward, where the conditions have remained the same, malarial diseases have shown a considerable increase. In the northerly part of the city, also, malarial diseases are reported to have increased and to have appeared in certain parts of the valley of the West River, along the borders of the mill-ponds, where they were before unknown. Along the northerly slope of Federal hill, malaria has diminished slightly, possibly due to the partial filling of a shallow pond in that vicinity. There is no question that malaria will cease to prevail whenever the swamps and low-lands in which it develops are properly drained and filled. The work which has been done in this direction has shown excellent results, and the amount which is thus expended will certainly prove a good investment for the owners."

In relation to contagious diseases, he remarks :

"Previous to April 1st, 1885, the inspection in cases of contagious diseases was carried on in a very imperfect manner owing to lack of assistance, but since that time the work has been done most efficiently by the medical inspector, Dr. Gardner T. Swarts, who was appointed under the authority granted by your board.

The number of cases of sickness and death from preventable diseases which occur in this city every year is very great.

Scarlet fever, diphtheria and typhoid fever are pre-eminently such diseases, and there is no work which so properly belongs to the health department as that of preventing their spread, both by giving information as to their nature and cause, and also by directing their management by law. It was to further this work that the medical inspector was appointed. It is his duty—

First. To visit every case of contagious disease which is reported at this office.

Second. To examine into the sanitary condition of the premises, and report all nuisances to the superintendent of health.

Third. To leave copies of the rules and directions governing such cases which have been printed by this department.

Fourth. To put a placard on the house in all cases of scarlet fever, diphtheria and small-pox.

Fifth. To notify school teachers of all children who have to be excluded under these rules.

Sixth. To fumigate all houses where he is satisfied that it has not been properly done by the occupants.

Seventh. To obtain as much information in regard to the cause of the disease as possible, and to keep a record of all cases on blanks, which, when returned to this office, are there kept on file.

Physicians are required by a city ordinance to report all cases of contagious disease to the superintendent of health."

The medical inspector reported, in relation to contagious diseases :

| | |
|---|---|
| Whole number of cases reported to superintendent of health | 387 |
| Number of premises inspected | 321 |
| Extra number of cases on same premises | 66 |

He says further:

"The schools show no concentration of disease, yet when one case appears in a given school, three or four cases are almost sure to follow, and when all these cases and all persons coming in contact with the cases are excluded from attendance at school, no more cases are reported from that school for some time, or until another case is imported into the school, when a new local epidemic will result. This has been especially illustrated in the Carpenter street and Warren street schools.

The number of children who have been excluded from schools, both public and private, on account of contagious diseases is as follows :

| | | |
|---|---|---|
| Individuals having scarlet fever | 92 | |
| Individuals having diphtheria | 33— | 125 |
| Scholars living in same house with these diseases | | 210 |
| Total number excluded | | 335 |

There have been issued 269 permits to attend school."

### NUISANCES.

During the year one sanitary inspector was kept busy most of the time, and an extra one was employed from April 4 to August 1. All the premises in the city were visited, but in most instances the examinations were limited to the yard, vault and cesspool. The public health is much more likely to suffer from vaults and cesspools than from any defects in plumbing and drainage inside the houses, and in the case of the appearance of cholera it is in these receptacles of filth that the chief danger lies. Moreover, vaults and cesspools are so generally used that the health department can scarcely do any better work than to continually call their owners' attention to these defects, and impress upon them the danger incurred by allowing these contrivances to remain upon their premises. It will, therefore, be seen that a very large proportion of complaints of nuisances are made in regard to vaults and cesspools.

In the poorer quarters of the city more thorough inspections were made, disclosing many defects in the plumbing and drainage and ventilation of houses.

I can report that generally the sanitary condition of the city showed a great improvement over the preceding year.

The increased attention which has been given by the health department to the abatement of nuisances, and the various circulars which have been issued from time to time, as well as the interest of the daily press in sanitation, have tended to create a healthier public sentiment in these matters.

Most house-owners are ready to comply with the requirements of this office, and, as usual, the most difficulty is experienced with those estates which are in litigation or the owners of which are non-residents.

The act of legislature which was passed last spring, and which was intended to cover these cases, has proved entirely inadequate.

Although our inspectors endeavored to be much more thorough in their search for nuisances last year than the year before, the number of premises against which complaints were recorded on our books was 2,421, as compared with 2,518 of the preceding year; and many of these resulted from the more careful examination of premises where contagious diseases were reported, for which service a special medical inspector was appointed by your board.

As regards cleanliness of streets Providence is unrivalled, and there is no reason why, with continued inspection, private property should not be kept in as good condition as public.

A book is kept at the office of the health department in which complaints of nuisances may be lodged by any one.

During 1885, 451 complaints were received, of which 308 were found to be well grounded ; the remainder were the results of whim and spite, and were often endeavors to draw the health department into private quarrels; 211 of these were made by the police. A very large number of the complaints made by both the police and private citizens related to nuisances which had already been examined by our inspectors and were being acted upon by this department. The following table exhibits the character of the nuisances acted upon during the year :

| | |
|---|---|
| Privy-vaults full and offensive | 1,096 |
| Cesspools full and offensive | 279 |
| Defective vaults and cesspools | 229 |
| Uncovered vaults and cesspools | 206 |
| Cesspools and vaults leaking onto adjoining estates | 46 |
| Cesspools and vaults leaking into cellars | 98 |
| Houses not provided with cesspools | 62 |
| Defective waste-pipes and drains | 686 |
| Houses with untrapped fixtures | 216 |
| Filthy yards | 495 |
| Filthy water flowing into street | 42 |
| Defective water closets | 16 |
| Filthy cellars | 94 |

5. In relation to water supply and water service the superintendent reports as follows :

## WATER SUPPLY.

There are in this city at the present time 1,424 wells in actual use.

There are 12,648 service pipes for the distribution of Pawtuxet water.

There are also 620 wells which have been abandoned, but which have not been filled up. Many of the owners of these unused wells imagine that they may make use of them at some time "in case the Pawtuxet should give out," little realizing how dangerous such a procedure would be.

Occasionally these old wells are used as cesspools, although it is forbidden by law. The pernicious results of such a use of old wells has before been alluded to. By it the soil becomes saturated with filth for a long distance, and if wells are in the neighborhood they are sure to be polluted. Moreover, the organic matter is retained so far below the surface that oxidation must be extremely slow. These well-cesspools are done away with whenever they are found by this department, and owners of all unused wells are urged to fill them with sand or ashes.

The majority of the wells in use for drinking purposes are in those parts of the city towards the outskirts, where the city water pipes have not as yet been laid. Thus, in the ninth and tenth wards, with a population of 39,000, there are 896 wells in use, while in the wards from the second to the eighth inclusive, with a population of 63,000, there are 316 wells in use. The water in many, and probably a majority, of these wells is unfit for use, and in not a few cases has undoubtedly been the immediate cause of sickness.

As a rule, however, the citizens are anxious to make use of the Pawtuxet when it is possible, but there must, of course, always be near the borders of the city many who cannot secure this privilege.

## PAWTUXET WATER.

The Pawtuxet water, which was introduced in 1871, is obtained by pumping from the Pawtuxet river, which drains an area of 192 square miles. This drainage area contains a population of about 17,000, most of whom are in manufacturing villages, which stud the banks of the river. The minimum flow of this river is 115,000,000 gallons per day. The general character of the water is indicated by the accompanying table of the results of analysis made by Professor Appleton of Brown University.

## PAWTUXET WATER ANALYSIS FOR 1885.

Two analyses were made each month.

The figures indicate parts by weight in a million parts of water by weight.

| | Total Residue. | Mineral Matter. | Organic and Volatile Matter. | Common Salt. | Albuminoid Ammonia. | Ammonia. |
|---|---|---|---|---|---|---|
| January | 40 | 25 | 15 | 3.22 | .18 | .02 |
| | 37 | 17 | 20 | 2.03 | .18 | .02 |
| February | 38 | 23 | 15 | 3.81 | .16 | .02 |
| | 33 | 21 | 12 | 2.93 | .16 | .04 |
| March | 36 | 24 | 12 | 4.39 | .24 | .02 |
| | 36 | 25 | 11 | 4.10 | .19 | .02 |
| April | 36 | 22 | 14 | 3.22 | .20 | .01 |
| | 36 | 24 | 12 | 3.22 | .20 | .02 |
| May | 35 | 22 | 13 | 3.32 | .18 | .02 |
| | 38 | 21 | 17 | 2.34 | .20 | .03 |
| June | 38 | 22 | 16 | 2.64 | .22 | .08 |
| | 45 | 28 | 17 | 3.22 | .22 | .10 |
| July | 42 | 26 | 16 | 3.81 | .22 | .06 |
| | 61 | 37 | 24 | 5.27 | .30 | .03 |
| August | 50 | 33 | 17 | 4.98 | .28 | .08 |
| | 54 | 36 | 18 | 4.98 | .24 | .20? |
| September | 54 | 35 | 19 | 4.98 | .24 | .06 |
| | 62 | 45 | 17 | 5.86 | .24 | .10 |
| October | 63 | 46 | 17 | 6.15 | .28 | .06 |
| | 56 | 38 | 18 | 5.27 | .28 | .04 |
| November | 56 | 46 | 10 | 6.74 | .24 | .08 |
| | 56 | 33 | 23 | 5.36 | .24 | .10 |
| December | 45 | 32 | 13 | 4.76 | .18 | .04 |
| | 49 | 31 | 18 | 4.76 | .22 | .01 |

## SEWERAGE.

6. There are still nearly two-thirds of the population of Providence city who are without connection with the public sewers. Dr. Chapin states that "for several years the construction of sewers has proceeded rather slowly; 53.05 miles have thus far been built, 3 64 miles of which were constructed last year. At present there are 4,241 sewer connections, 303 of which were made in the year 1885. Through these connections about 44,000 persons have access to the sewers. But there is still a large number of houses on sewered streets which are not yet connected. Besides those who are already provided for as far as the construction of the street sewers are concerned, there is a large population which is entirely beyond the reach of any sewer, and which suffers very much in consequence."

7. The following rules in relation to swill and offal were adopted in 1885, as a part of the sanitary code, by the board of aldermen acting as a board of health :

### RULES OF THE BOARD OF HEALTH IN REGARD TO SWILL AND OFFAL.

18. The occupant of every tenement-house, dwelling-house, or other building where swill or garbage shall accumulate, shall provide a suitable receptacle, properly covered, for such swill or garbage, and no dish-water, ashes, house-sweepings, bottles, crockery, earthen, glass, tin or iron ware, or other rubbish of any kind, shall be placed in any such receptacle, nor shall any swill, garbage or offal be placed in any receptacle for ashes·or rubbish, or deposited in any yard or vault, or in any other place than its proper receptacle.

19. No owner, lessee or occupant of any building or premises within the city shall deposit or allow to be deposited, or allow to remain upon or in said building or premises, any dirt, offal, decaying animal or vegetable matter, or solid or liquid filth of any kind, which, in the opinion of the superintendent of health, is in any way offensive or a nuisance.

26. Any person violating any provision of this code, wherein no penalty is herein otherwise prescribed, shall be fined not less than five nor more than twenty dollars for every violation thereof, and shall be fined not exceeding twenty dollars for each day's continuance of the said violation after the service of the notice issued upon the first complaint.

### RULES RELATIVE TO DUMPING GROUNDS.

1. Whenever land is used as a dumping ground, the owner or owners, or agent of said owner or owners, shall cause all offensive or decaying matters to be completely covered with earth or clean ashes immediately upon the deposit thereof.

2. Every person violating the foregoing rule shall be fined not exceeding three hundred dollars, or be imprisoned not exceeding six months. One-half of said fine shall inure to the use of the complainant, and one-half thereof to the use of the city of Providence.

8. The board of aldermen are the only board of health in Providence city.

9. C. V. Chapin, M. D., superintendent of health.

10. Gratuitous vaccination was provided on a large scale. The superintendent of health reports: "The employees in a large number of mills, machine shops, and retail houses were vaccinated by physicians employed by this department, and in every case the proprietors took great interest in the matter, and offered every facility for the work, although in some few instances the regular business of the establishment was somewhat interfered with. All the horse-car conductors and drivers were vaccinated, and also most of the employees of the various railroads entering the city. The entire police force was re-vaccinated, and vaccination was made compulsory for all persons who applied to the police for lodgings. All children attending the public schools are required to be vaccinated as set forth in the following extract from the Public Statutes, Chapter 61, Section 14:

'No person shall be permitted to attend any public school in this state as a pupil unless such person shall furnish to the teacher of such school a certificate of some practising physician that such person has been properly vaccinated as a protection from small-pox, and every teacher in the public schools shall keep a record of the names of such pupils in their respective schools as have presented such certificate.'

This rule has been rigidly enforced by the teachers, and large numbers of the pupils have been vaccinated at the city hall. When the evening schools opened, each one was promptly visited, and all pupils who needed it were vaccinated. The Catholic schools all voluntarily conformed to the law as applied to the public schools, and at the request of the principals were visited by the vaccinators of this department. It was also determined to make a house to house visitation and offer free vaccination to all who desired it. Eleven physicians were employed for this purpose."

The number of persons vaccinated in 1885 was 16,766, making the whole number of gratuitous vaccinations in the city since 1856, 47,431.

The number of vaccination certificates given out by this department during the year 1885 was 2,725, this large number being due to the fact that they were required by some of the Catholic schools. The total number of certificates given out since 1856 is 40,262.

In all visits made by the vaccinators not a hundred unprotected persons were found who refused to be vaccinated.

11. Undertakers are prompt in making returns of death, because a burial permit is required before burial.

C. H. Fisher.

The following extracts from the inaugural address of His Honor Mayor Thomas A. Doyle, January 4, 1886, will give information in addition to remarks and reports on previous pages, of work accomplished during 1885, having directly or indirectly the preservation of the public health.

### THE WATER WORKS.

The steady and regular increase in the receipts from water, if there be no further reduction in the rates, seem to render it certain that notwithstanding the outlay necessary for the high service, the income from water will exceed the interest on the water debt and the cost of maintenance by the close of the year 1889.

The total length of water pipes of all sizes laid since the commencement of the water works is 189.9 miles, of which 5.3 miles were laid during the past year. There are now in service, including 10 post hydrants, 1,244 hydrants, 20 of which were set during the past year. The average daily consumption of water, in gallons, during the summer months of the last five years is as follows :

| 1881. | 1882. | 1883. | 1884. | 1885. |
|---|---|---|---|---|
| 4,109,000 | 4,610,000 | 5,024,000 | 4,376,000 | 5,339,000 |

The average daily consumption of water, in gallons, including eleven months of 1885, during the last five years, is as follows :

| 1881. | 1882. | 1883. | 1884. | 1885. |
|---|---|---|---|---|
| 3,717,000 | 3,665,000 | 4,144,000 | 4,083,000 | 4,196,599 |

The largest amount of water consumed in any one day during the past year was 7,433,000 gallons, being 1,289,000 gallons more than in any day in 1884.

One year ago I stated that negotiations with nearly all the parties on the banks of the Pawtuxet river, from whose premises impurities might flow into the stream, had resulted satisfactorily. The board of public works, in their report for the quarter ending September 30th, last, speak very encouragingly in regard to what has been accomplished in this direction.

In relation to additional sources of water supply for a part of the city now quite inadequately supplied, he remarks :

At the date of my last annual message little progress had been made in regard to securing a further supply of water for the high service of the first and tenth wards. Early in the year, however, citizens of North Providence interested in the growth and prosperity of their town took the matter in hand. A formal vote of the town council of North Providence was passed on the 4th of May, in which terms were given upon which the city might construct a reservoir and extend their water works in the town. A resolution accepting the terms agreed upon was passed by the city council and approved June 23d, last. This being done, the city engineer was instructed to stake out the land required for a site for the reservoir and the highways that might be required leading thereto. This work was finished near the close of the past year, and by a resolution adopted by the city council and approved December 21st, last, the board of public works was directed to purchase the required land, and an appropriation was made sufficient to defray the expense thereof. It only remains for the work of building the reservoir and highways to be ordered, so that the actual work of building may be commenced with the opening of spring weather. The day when ground is broken for the new reservoir will be a happy occasion to a large number of citizens in the northerly part of the city, who have been long and anxiously waiting for a full supply of pure water.

## THE SEWERS.

During the past year a considerable amount of new sewer work has been done, there having been 2.69 miles of pipe sewer, and nearly one mile of brick sewer constructed, making a total for the year of 3.64 miles, which, added to the sewers previously built, makes the whole total of work done at the present time, 36.31 miles of pipe sewer, and 16.74 miles of brick sewer, or in all a total of 53.05 miles of sewers built up to December 31, 1885. During the year, 79 catch-basins were constructed, making a total of 1,960 now in use. There were also 144 manholes to the sewers built, making the whole number of these 2,744. The total number of sewer connections made is 4,238, of which 301 were laid during the past year.

## WASHINGTON COUNTY.

### CHARLESTOWN.

1. No diseases fatal or very serious within my knowledge have prevailed during the last year.

2. No cases of small pox.

3. No disease among domestic animals has occurred during the year.

4. No work for the promotion of public health has been contemplated by the authorities of the town.

5. We have no water service for general use.

7. No new ordinances in abatement of nuisances or other improvements for public health.

8. No legal board of health beside the town council.

9. No health officer appointed.

10. Gratuitous vaccination has been provided in this town during the past year.

11. Undertakers have not in all cases promptly sent in returns of deaths.

George C. Cross, Town Clerk.

### EXETER.

1. No very fatal disease has prevailed largely in this town during the last year.

3. No largely fatal disease occurred among domestic animals.

4. No new work for the promotion of public health has been contemplated.

5. There is no water service for general use.

7. Nothing new in the way of abatement of nuisances or other sanitary improvements.

8. No legal board of health beside the town council.

9. Health officers not appointed.

10. Gratuitous vaccination has been provided in this town during the past year. The proportion of the population vaccinated was about one in 20.

11. The regular undertakers have made returns, but as there is no undertaker in the town in most burials the coffin is procured by a neighbor or friend, and some person not an undertaker officiates at the funeral. In such cases no return is made. Only 7 deaths have been returned this year (1885), and most of those by Administrators or Executors on requirement by Court of Probate.

N. B. Lewis.

### HOPKINTON.

1. No very fatal disease has prevailed largely during the last year.

3. No widely spread disease occurred among domestic animals.

4. No action in relation to new measures for the promotion of public health.

7. Nothing in the way of sanitary progress.

8. No board of health beside the town council.

9. Health officers have not been appointed.

10. Gratuitous vaccination was provided during the past year. Whole number vaccinated, 386—about one-seventh of population, most of whom were children.

E. R. Allen.

### SOUTH KINGSTOWN.

1. No very fatal disease has prevailed largely.

3. No largely fatal disease occurred among domestic animals to my knowledge, except roup disease in fowls.

4. Nothing new for the promotion of public health by the town authorities.

5. No water service for general use.

7. Nothing new in abatement of nuisances.

8. No legal board of health beside the town council.

9. Health Officers: the town council and town sergeant—Benj. R. Curtis, President Town Council. Peace Dale, R. I.; John R. Wilcox, Town Sergeant, Wakefield, R. I.

10. Gratuitous vaccination was provided in this town during the past year. Two hundred and fourteen children were vaccinated in 1885, or about 1 in every 26 of the population.

11. Undertakers have promptly sent in their returns of death, I think, as near as they could.

J. G. Perry.

### RICHMOND.

1. No very serious disease has prevailed largely.

3. No largely fatal disease occurred among domestic animals.

4. Nothing for the promotion of public health contemplated or completed in this town by the authorities.

5. There is no water service for general use.

7. Nothing new in the line of sanitary work.

8. No board of health beside the town council.

9. Health Officers, the town council—1, Clark Barber; 2, Henry F. Woodmansee; 3, Joshua C. Eldred; 4, Joseph Bagley; 5, Levi J. Cornell.

10. Gratuitous vaccination was provided. Dr. E. E. Kenyon, Usquepaug, was employed to vaccinate the inhabitants, but has not made any returns to this officer.

11. Undertakers have sent in returns this year more promptly than ever before.

Halsey P. Clarke.

### WESTERLY.

1. Scarlet fever prevailed very largely during the winter of 1885.
2. No small pox.
3. Have not known of any disease among domestic animals that was very fatal.

At a meeting of the Town Council of Westerly, R. I., held April 1st, 1885, the following communication was received:

We, the undersigned, practitioners of medicine in Westerly, in view of the existence in our town of a recognized epidemic of scarlet fever, and the increasing mortality of the same, do recommend to the boards of health of Westerly and Stonington, that in order to check the progress of the disease, and prevent further loss of life from its ravages, they pass such ordinances as may be necessary to embody and enforce the following suggestions, which, in the opinions of your petitioners, are necessary to the welfare and safety of this community:

1. That the public schools in those districts in which there are one or more authentic cases of scarlet fever be closed until the danger from this epidemic be passed.
2. That the attention of pastors of churches, the superintendents of Sabbath schools, and proprietors of places of public amusement, be called to the danger arising from the congregating of children in such places, and such legislation as may be necessary passed to prevent further infection by such means.
3. That some means be taken to urge upon parents and guardians the necessity of strict quarantine for those affected, the danger arising from frequenting localities infected, and the importance of thorough and systematic disinfection after the disease.
4. That the health officer in each town be required to disinfect, in the manner recommended by the Washington County Medical Society, all houses in which cases of scarlet fever have occurred, and which have not previously been disinfected by the attendant physician in the same thorough manner, and evidenced by a certificate to that effect.
5. That a fine be imposed upon any person who shall have, or harbor in his house, any case of scarlet fever which shall not be reported to the proper authorties within three days from its development.
6. That some provision be made to insure that the funerals of persons dying from scarlet fever should not be public, and that the services should occur within a proper time after the death of said person.

(Signed,)
E. R. Lewis, M. D.,
H. N. Crandall, M. D.,
Lucy Almy Babcock, M. D.,
F. T. Rogers, M. D.,
H. J. Pomroy, M. D.,
H. W. Rose, M. D.
G. C. Bailey, M. D.,
H. A. Sherwood, M. D.

Dated at Westerly, R. I., April 1, 1885.

Upon consideration, it was

*Resolved*, That we recommend to the trustees of those school districts in which there are, or may be, one or more authentic cases of scarlet fever, to close the school or schools until the danger from that epidemic has passed.

*Resolved*, That we call the attention of the pastors of churches, the superintendents of Sabbath schools, and the proprietors of all places of public amusement, to the dangers arising from the congregating of crowds at the present time, and recommend that they use all possible means to prevent the spread of scarlet fever from such a cause. And that all parents and guardians be warned against the dangers of allowing their children or wards to roam upon the streets, visit infected localities, or mingle in crowds. And that we advise a thorough and systematic disinfection of the house and contents after the termination of the disease, as absolutely necessary for safety.

*Resolved*, That we request all practicing physicians to notify the health officer of all cases of scarlet fever patients under their treatment.

*Resolved*, That the health officer be required to disinfect, in the manner recommended by the Washington County Medical Society, all houses in which cases of scarlet fever have occurred, and which have not previously been disinfected by the attendant physician In the same thorough manner, as evidenced by a certificate to that effect.

*Resolvd*, That we recommend that public funerals of scarlet fever patients be discontinued, and that burial follow as soon as practicable after death.

## MEASURES ADVISED FOR THE PREVENTION OF CONTAGIOUS DISEASES.

1. So far as practicable, the sick should be carefully separated from the well, and the apartments should be kept well ventilated. Where the situation of apartments is such that complete separation cannot be had, the well should be kept at as great a distance as possible from the sick.

2. Those acting as nurses should frequently wash their hands in some disinfecting fluid (as a solution of carbolic acid, one part in forty parts of water), and should change their clothing when they leave the sick to mingle with the well, or to take care of another case of illness. No nurse who has had the care of a case of contagious disease should be allowed to attend a case of confinement, without having first carefully washed and disinfected her own person and clothing throughout.

3. The patient should be kept perfectly clean, and every article of the patient's clothing or bedding, which becomes soiled, should be immediately boiled for one or two hours, or else thrown into a standard disinfectant solution, diluted with an equal quantity of water, and soaked for an hour, then rinsed out and washed. Instead of handkerchiefs, bits of cloth should be preferably used, and then burned. All dust and sweepings of the rooms should be burned.

4. All discharges from the mouth, bowels and bladder, should be received into vessels containing at least an equal volume of the standard disinfectant solution, and any fecal masses should be thoroughly broken up, so that the solution may have access to all parts of them. Having been thus subjected to the disinfectant for an hour or more, they should be thrown out at a distance from the

house, and as far as possible from any well or source of water supply, or, better still, let them be buried. [This disinfection of discharges from the bowels is of very great importance in typhoid fever, also.]

5. In cases of death from scarlatina, diphtheria, or small-pox, the body and its clothing should be thoroughly sprayed or wet with the standard disinfectant solution, diluted with an equal quantity of water, and the burial should take place as soon as the proper arrangements can be made. The coffin should not be opened at the funeral.

After death or recovery from either of the above-mentioned diseases, where practicable, the apartments used by the sick should be fumigated by burning not less than one pound (and three pounds would be better) of sulphur for each 1,000 cubic feet of space to be disinfected, and allowing the fumes to act till the next day. Then the doors and windows should be opened, so that the apartments may be freely ventilated, for a day longer ; the walls should be washed and re-papered or painted ; the bedtick, bedstead, and other furniture, and everything else that has been used about the patient, should be thoroughly wet with the standard disinfectant solution, diluted as before stated. When this has been done, it would still be best to ventilate the rooms for some days before reoccupying them.

Where the situation of apartments is such that fumigation cannot be thus carried out without endangering the family or some of its members, the walls, ceilings, floors, furniture, etc., should be washed thoroughly with the standard disinfectant solution, diluted as before stated, and the rooms ventilated as freely as may be.

The standard disinfectant solution, referred to in the foregoing, may be made by dissolving 8 grams (2 drachms, nearly) of corrosive sublimate, in one gallon of water. It should be used in full strength to disinfect the discharges from mouth, bowels, and bladder ; and should be diluted with an equal quantity of water for disinfecting clothing, bedding, etc., and for washing walls, ceilings, woodwork, furniture, etc.

It is advised that persons using this solution in washing walls, furniture, woodwork, etc., should apply it freely by means of a mop or cloth fastened to a stick or handle, as otherwise it might make the hands very sore.

By order of the town council.

9. H. W. Rose, M. D., was appointed Health Officer.

10. Gratuitous vaccination was provided during 1885.

# HEALTH OF TOWNS.

*Additional Reports, Ordinances, Rules, Regulations. etc., having relation to the public health, and adopted or proposed in the different towns and cities of the State during 1885.*

## CITY OF NEWPORT.

### REPORT AND ESTIMATES FOR THE COMPLETION OF THE SEWERAGE SYSTEM, BY H. A. BENTLEY, CITY ENGINEER.

*To the Honorable the City Council of the City of Newport:*

The following report is respectfully submitted in compliance with the resolution of the City Council passed January 5, 1885, instructing me "to report at the next meeting, estimates of the probable cost of continuing the main outlet sewer across the inner harbor and through the breakwater; of laying the trunk sewer through Thames street, and of everything necessary for the completion of the city sewerage as proposed in a plan previously submitted to the City Council."

During the past eight years various plans for a system of sewerage for the city of Newport have been submitted to the City Council. These plans have included in their number the combined system, which provides for carrying both storm water and house sewage in the same sewer; the separate system in which the two are separate; the method for utilization for agricultural purposes; and the method of precipitation and discharge of effluent into the harbor.

It was with the data collected in the presentation of these projects before me that, in the winter of 1883–4, the outline of this plan was made. It was submitted to the City Council April 4, 1884, at a special meeting called to discuss and consider the subject. At this meeting an allotment of $20,000 from the current appropriation for streets and highways was made for the commencement of the work, and resolutions were passed asking representatives in the Assembly and in Congress to procure leave to cross the harbor and breakwater with the proposed sewer.

The necessary authority has since been obtained from both of these bodies, as well as a right of way from the Old Colony Railroad Company to cross their property.

### GENERAL PLAN.

The proposed plan is to include a part of the storm water and all of the house sewage in the same sewers, and to discharge their contents into Narragansett Bay west of Goat Island Breakwater, by the means of an iron pipe to be laid in the bottom of the harbor from the harbor line on a prolongation of Marsh street to the deep water west of the breakwater.

At the harbor line a settling tank is to be built connecting with the pipe, and provided with a storm water gate for the discharge at this point of excessive storm water.

### LOCATION OF OUTLET.

The deep water west of Goat Island has been recommended as a safe point of discharge by Dr. Storer, Professors W. B. Rogers, Wolcott Gibbs, Josiah P. Cook, Fairman Rogers, Alexander Agassiz, Gen. G. W. Cullum, Mr. E. S. Chesbrough and Capt. J. P. Cotton. In a plan of sewerage prepared by Messrs. Chesbrough and Cotton, the outlet was located at the north point of Goat Island about 1,000 feet south of where it is now proposed to put it.

In 1880, Capt. Cotton made some observations of the effect of the tidal currents in this vicinity, by means of floats, and in February, 1885, other observations were made by the city engineer for the same purpose, and by the same means, at different stages of the tide.

* * * * * * * * * *

The results of these observations confirm the opinions expressed as to the safety of this vicinity as a point of discharge. The large mass of water here, with its currents, could undoubtedly take the sewage of a place much larger than Newport without being appreciably contaminated.

### SUBMERGED OUTLET PIPE.

The point of discharge being located, the manner of conducting the sewage from the tank across the harbor is to be considered. Messrs. Chesbrough and Cotton proposed to carry it in an iron pipe laid in a dredged trench to protect it from vessels' anchors; this is the cheapest and most feasible plan, and it is recommended.

The total length of the pipe will be about 1,500 feet, and it is proposed to make it thirty inches in diameter. The outer, or west end, should be built far enough above the bottom of the bay to prevent the shifting sands from clogging it; it should, at the extreme end, be provided with a quarter bend with the mouth turned down, as a further protection against obstruction.

At the breakwater it is proposed to extend a stand pipe to above the level of highest tides, to guard against the accumulation of air in the pipe (this point is the crest), and also for use as an inspection hole, and as a convenient place to clear the outer end if it should become obstructed.

*Method of Cleaning Pipe in Case of Obstruction.*—In addition to the settling tank at the harbor line, for screening and catching substances liable to obstruct the pipe, a small wire rope is to be left in it, between the tank and inspection hole at the breakwater, and a second rope, from the inspection hole to the outer end of the pipe. With these ropes a chain or ball may be dragged through, or, with the application of hydraulic pressure at the shore end, a ball could be forced through, and the pipe thus cleansed.

At the lowest point of the pipe it is proposed to place two Y joints, the branches to lay horizontally, and to be provided with caps screwed on. Around these joints a small basin would have to be dredged to the depth of the bottom of the pipe, then, in case of an obstruction that could not be removed by the process just described, by sending a diver to remove the caps, and applying pressure against a ball at either end, the contents can be blown from the pipe at its lowest point.

It is not anticipated that substances would collect that could not be removed in the manner first described, but to provide against contingencies these joints are recommended. The increased cost would be slight.

*Manner of Laying Pipe.*—The pipe is to be laid in sections connected on shore, and floated to the proposed location, where, after protecting the ends temporarily from deposits, the pipe is to be lowered gradually into place, and the connections made with a diver.

The pipe to be used will be flanged at its joints and screwed together. It might be laid with flexible jointed pipe, but the flanged pipe laid in the manner indicated would be cheaper, it would leave a more uniform surface inside, and can be taken apart at any joint, whereas with the flexible joint the whole pipe would have to be taken up for repairs in case of accident. At changes of direction curved pipe will have to be used.

Before laying, the whole pipe should be thoroughly treated with pitch and oil, or asphalt and coal tar, for preservation.

*Discharging Capacity.*—A pipe thirty inches in diameter, smooth inside, and laid with no sharp curves, with a pressure due to one foot head, will discharge 6,010,560 gallons per day of twenty-four hours.

The proposed sewer pipe will have but one sharp turn, and will be laid straight, horizontally, and with a vertical curve so slight that it should not theoretically affect the discharge. In computing the capacity for this purpose, seventy-five per cent. of the full power of the pipe has been assumed as the safe duty, which would make the discharge for twenty-four hours 4,507,920 gallons.

## AMOUNT OF SEWAGE TO BE PROVIDED FOR.

The ordinary daily dry weather flow of sewage is taken as sixty gallons per day per inhabitant.

In this connection I quote the following from the report of Mr. Samuel M. Gray, City Engineer of Providence, R. I., dated July 23, 1884, submitting a plan of sewerage for that city, he says: "This flow of town sewage in Providence at the present time is about 3,000,000 gallons. This is based on careful and extensive gaugings made at different times of the amount of sewage flowing into the several sewers.

* * * * * * * * * *

There were, in June, 3,528 connections with the sewers. It is estimated that these sewers take the sewage from 36,421 inhabitants."

The city of Providence has a population of about 100,000, so that only about one-third of the inhabitants connect with the sewers. We have no data for making accurately a comparison between Providence and Newport of the number of connections with sewers. During the period from May 7th, 1884, to February 1st, 1885, one hundred and fifty permits to enter our sewers were granted. Nine hundred and ninety one people inhabit the houses. The fixtures connected were, water closets, 81, laundry tubs, setts 28, kitchen and pantry sinks, 244, bath tubs, 39, cellar drains, 49, cesspools, 12, stables, 3, land drain, 1.

Newport has a winter population of about 17,000 ; this number in summer is largely augmented by visitors and summer residents, which it is assumed will bring the number up to 30,000.

A daily capacity of 4,507,920 gallons provided by the outlet pipe would be sufficient to take the sewage of about 75,000 people if the flow were unifrom throughout the 24 hours, but during the night there is ordinarily very little flow, while for three or four hours before, and after noon, a large proportion of the whole amount is discharged, an allowance of one-half the total daily discharge is taken here as passing off in eight hours, we thus have capacity of pipe for twenty-four hours, one foot head—4,507,920 gallons, or, 1,502,640 gallons for eight hours, which, allowing 30 gallons per inhabitant to flow in eight hours and 30 gallons in the remaining sixteen hours of the day, would provide for a population of a little over 50,000.

It will be seen from the above that a smaller pipe than the one contemplated would answer the present and the near future requirements, and I would not, in planning a system of sewerage for this city, recommend that provision be made for so large an increase of population as is represented by these figures, if that were the only question affecting the size of the pipe ; but it is to be laid under water, where access is more or less difficult, and with a probability of partial obstruction from material settling in the bottom, and thus decreasing its discharging capacity. It is for these reasons, coupled with the probable increase of population, that the large size of pipe is recommended.

The calculations of discharge are based on a constant head of one foot, the head will at times be much less, depending on the flow of water in the sewer. In the event of heavy rain storms it would exceed one foot, and the storm water would accumulate in the settling tank until it reached a height sufficient to exert the necessary amount of pressure to force open the storm gates of the tank. Under ordinary circumstances, with the sewage of the winter population and a flow of water due to one foot head, only one-third of the capacity of the pipe would be utilized, leaving the other two-thirds to carry the first flush of the storm water.

*Storm Water.*—From the first and second wards no change in the disposition of the storm water is proposed ; it now flows either into the harbor directly, or into the main outlet sewer and its connections.

In the Fourth street sewer sufficient surface water would be admitted to keep the sewer flushed.

In the Thames street sewer storm water that is admitted into the existing sewers on the west slope of the city, and which is now discharged at various points along the harbor front, would be taken up and discharged through the main outlet, except at excessive storms, when the sewer is to be relieved at the overflows which lead directly to the harbor.

The only additional provisions for storm water contemplated for this section is in Spring street, near Franklin, and at Bellevue avenue and Ruggles avenue, at which places greater facilities should be afforded. In Thames street from Lee avenue to Brenton street the storm water would be diverted from Marchant street sewer, and taken to the main Thames street sewer.

The east slope of the city would drain its storm water into Easton's lower pond and into the ocean as it does now.

### SETTLING TANK.

This tank is to be divided into compartments to facilitate the settling of sand, gravel or other substances liable to obstruct the pipe. It is to be built on the outside of heavy granite blocks forming a wall eight feet wide at the bottom, and four feet on top, with the batter on the outside. The east wall to be perpendicular and eight feet wide. The tank inside is to be lined with brick or wood, to secure a smooth tight surface, with the bottom sloping to one corner where it is proposed to locate an endless chain with small bucket attachment for the purpose of removing any material accumulated. A storm water gate is to be located in the first compartment, directly in front of the mouth of the sewer ; it is to be so arranged as to remain closed except when the accumulated height of water in the tank becomes sufficient to force it open. (See Plates I and II.)*

### MAIN OUTLET SEWER EXTENDING FROM THE TANK TO THE PARADE.

(Built in 1884.) Figure I, Plate III shows the form and construction of this sewer as far as Washington street. It is five feet high and four feet wide. At Washington street, because of the low grade of Marsh street, the form was changed and the horizontal diameter made five feet, and the vertical diameter reduced to four feet. This size and form was continued to the railroad crossing, where, after making provision for the Washington street, Second street, Third street and Fourth street sewers, the vertical diameter was reduced to forty-one inches, and that size was continued up to the Parade ; (see Plate III, figure 3)* here a connecting sewer circular in form, and thirty-two inches in diameter, was built to the Parade sewer, diverting about one-third of its flow into the new outlet.

### PARADE SEWER.

This sewer at the point where it is connected with the main outlet, is circular in form, and four and one-half feet in diameter. Its place of discharge when running more than one-third full is at the inner angle of Long Wharf. Formerly its entire contents were discharged here. The ordinary dry weather flow of this sewer is six inches in depth, and this volume will have to be increased six times before the full capacity of the connecting sewer is reached.

---

* It was uncertain when this matter was sent to the press, whether or no the illustrating plates of the report could all be obtained in time for insertion.

At Prison street the size is reduced to 4 feet diameter and it is so continued through Prison street and River lane, to West Broadway, where it is further reduced to 3½ feet. It is carried through West Broadway, and Broadway to the City Asylum, at which place it is a ten-inch vitrified pipe.

At Rhode Island avenue a branch sewer two feet in diameter is laid, which extends to Kay street, thence through Kay, Redwood avenue, Water Works street, De Blois avenue and Francis street, to Gibbs avenue ; thence it is a pipe sewer fifteen and twelve inches in diameter, to beyond Buena Vista street. It has a proposed extension through Gibbs and Cliff avenues, to Dresser street. The connections with these sewers built and proposed are shown on Plate VIII.

### PROPOSED FOURTH STREET SEWER.

This sewer to be twenty-four inches in diameter, built along the side of the Old Colony Railroad track, or Fourth street, as far as the north end of Long lane. It is designed to provide sewerage for that part of the City north and west of Warner street, with the exception of the territory to be drained into the proposed Washington street sewer, and the Second and Third street sewers. (See Plate VIII).

### PROPOSED THAMES STREET SEWER.

This sewer is to be oval in form with a vertical diameter of forty-eight inches, and a horizontal diameter of thirty-seven inches or equivalent in size to a circle of forty-two inches diameter. It will be joined to the main outlet near the Parade, and extend south to Lee avenue. In this distance six storm water overflows are to be provided. It will then be extended through Lee avenue, Spring and Webster streets to Ochre Point avenue, where a connection with the Narragansett avenue sewer to divert the ordinary dry weather flow of that sewer, is proposed.

At Lawrence lane a branch sewer is provided, extending to Victoria avenue, for the drainage of the section known as Ochre Point ; it has a proposed extension through Victoria avenue, Wetmore avenue and Ruggles avenue, to Bellevue avenue, and thence south to a point about 800 feet south of Bancroft avenue. (See Plate VIII).

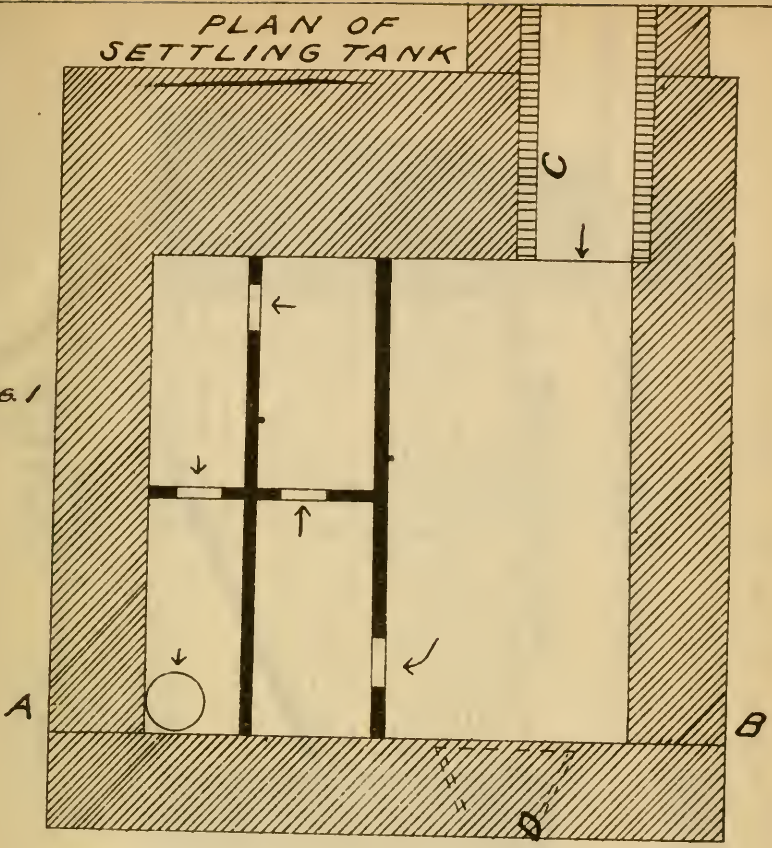
In submitting the outline plan to the City Council last April, an estimate of $50,000 was made for the construction of this sewer as far as Lawrence avenue. with a maximum cut of eighteen feet through Webster street. At the same time it was stated that a much deeper cut would be necessary to effectively drain Ochre Point. Since that time, additional information obtained, and more careful study of the wants of this locality, have greatly strengthened my opinion as to the advisability of building a sewer deep enough to provide for the whole territory. This would require a depth at Bellevue avenue and Webster street, of thirty feet, and there would be in all about 1,500 feet in length of this depth.

It is proposed to build this portion of the work by tunnelling. The rock

PLATE I

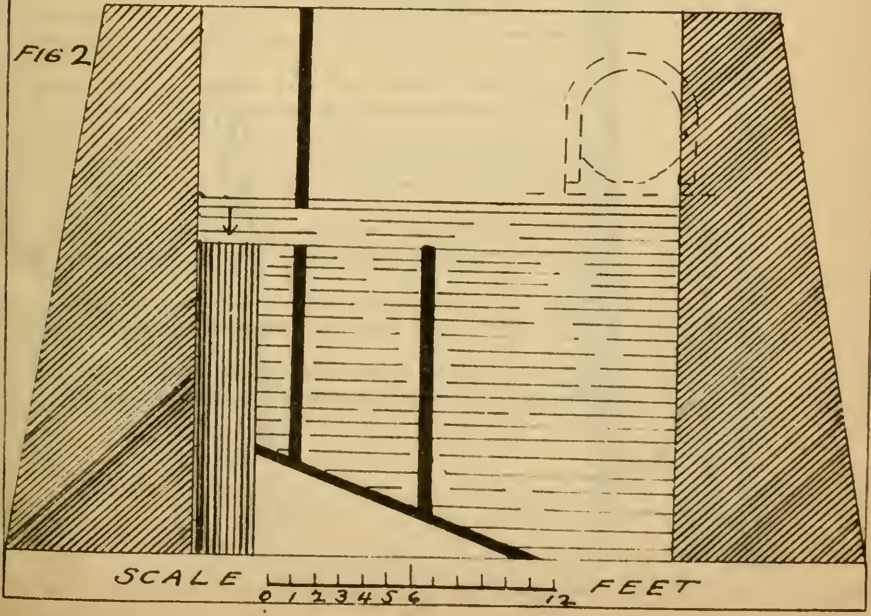
PLAN OF SETTLING TANK

FIG. 1



SECTION ON A-B

FIG. 2



## PLATE II

### SECTION ON C-D, PLATE I

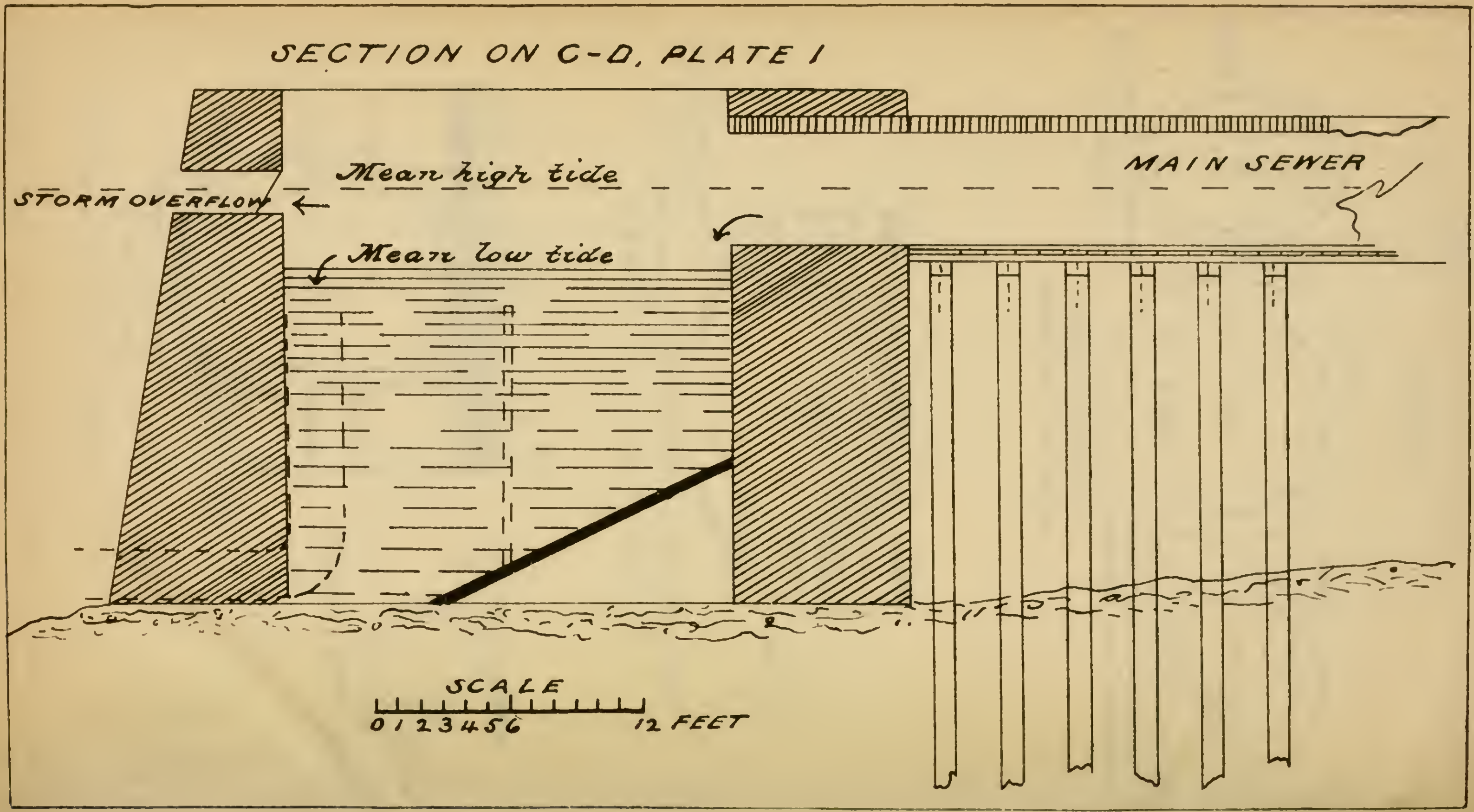
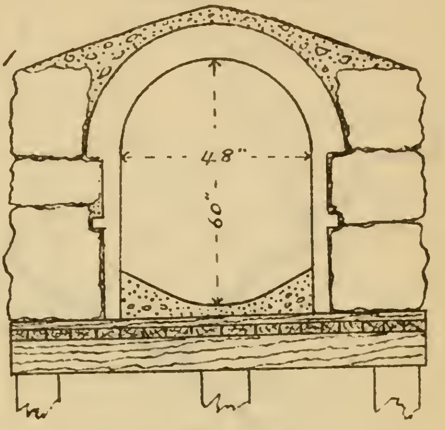


PLATE III

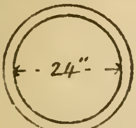
MAIN OUTLET SEWER
(west end)
built in 1884

FIG. 1



PROPOSED SEWER

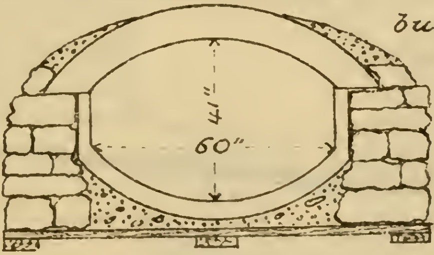
FIG. 2



FOR FOURTH ST.

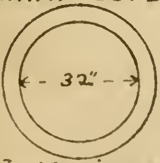
MAIN OUTLET SEWER
AT THAMES AND MARLBOROUGH STS.
built in 1884

FIG. 3



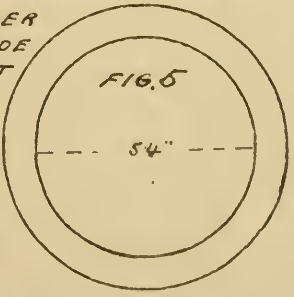
CONNECTING SEWER
BETWEEN PARADE
AND MAIN OUTLET

FIG. 4



built in 1884

PARADE SEWER
built in 1875



PROPOSED
THAMES ST. SEWER

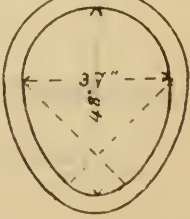
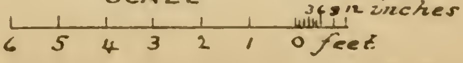


FIG. 6

SCALE



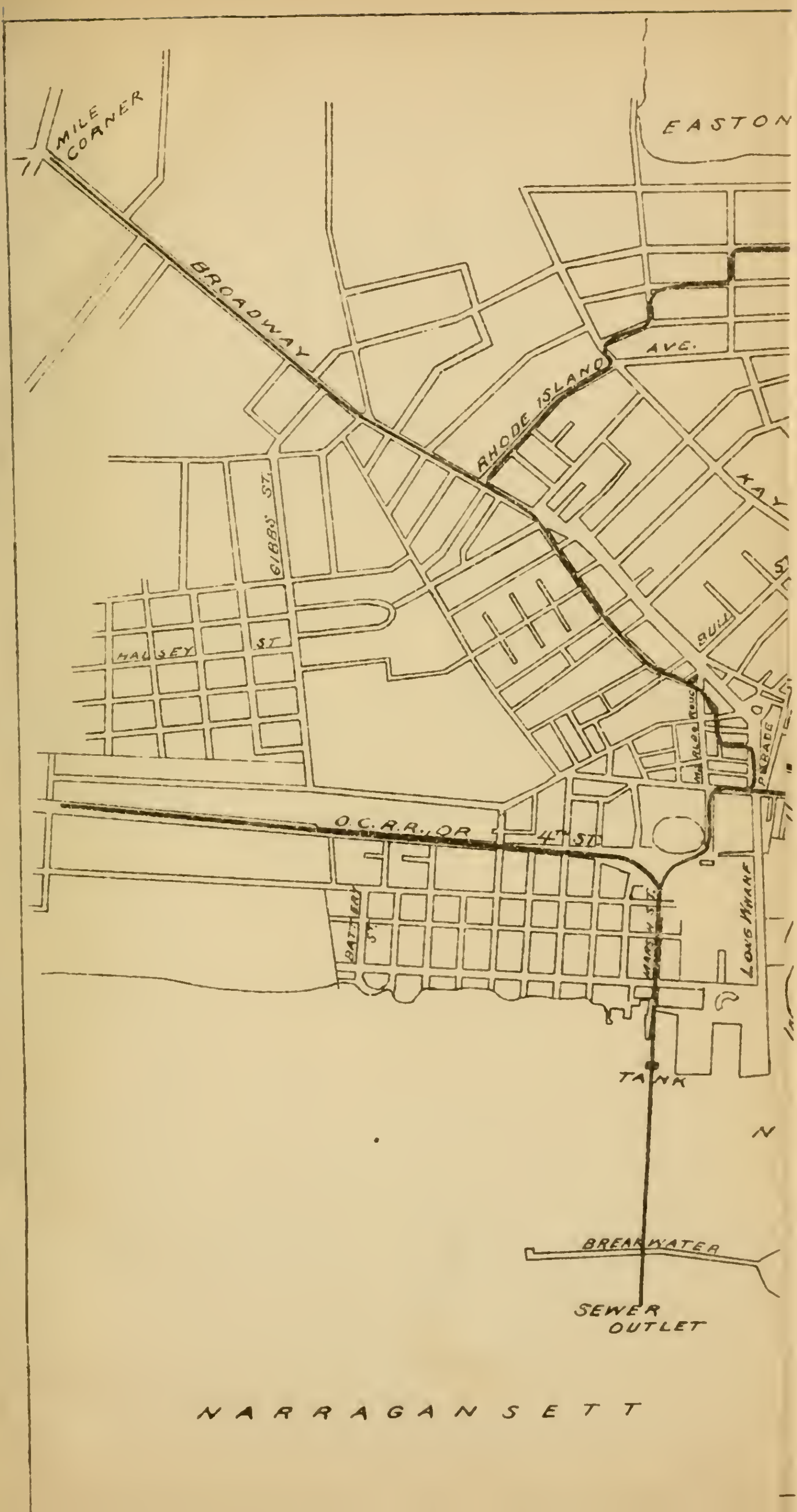
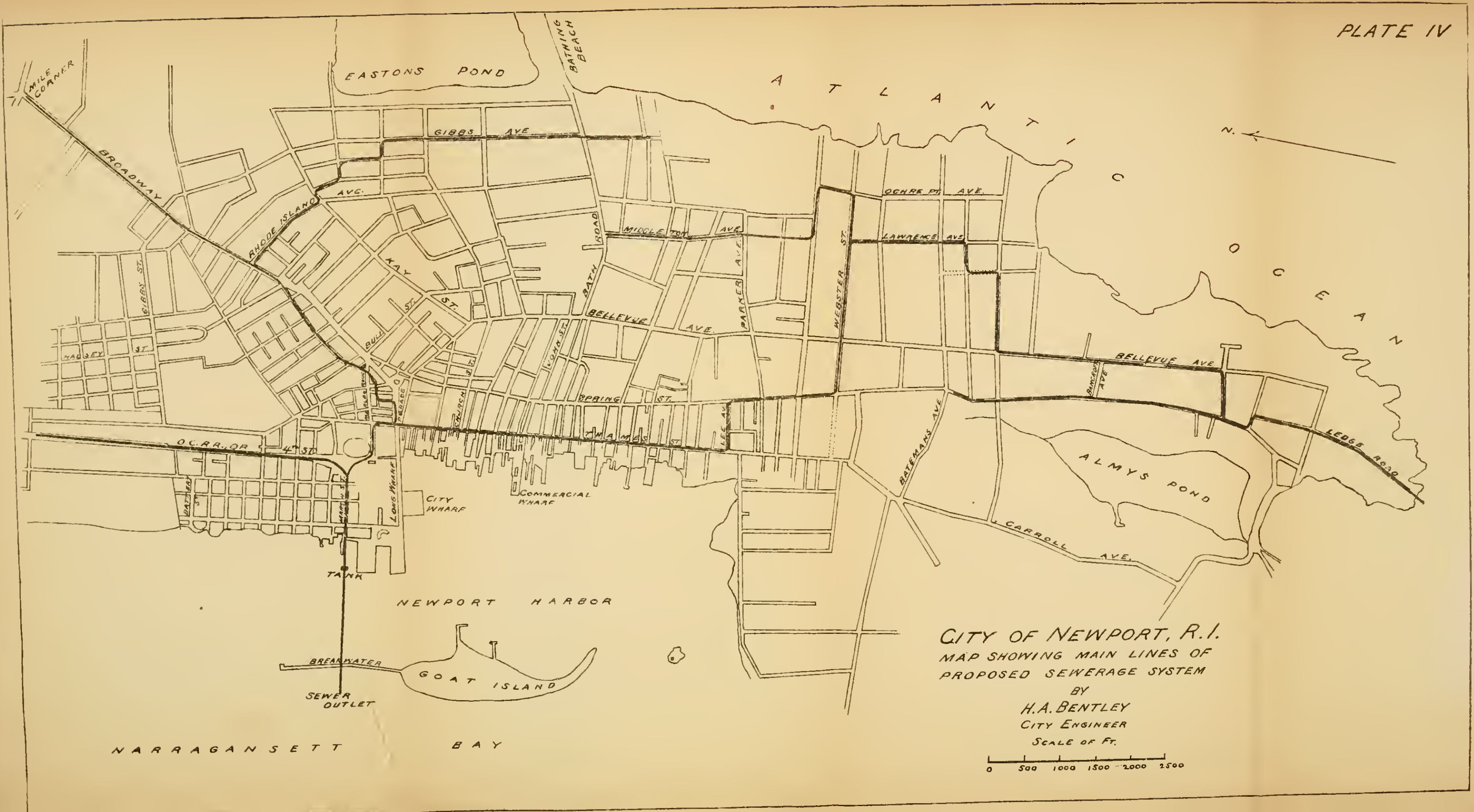

MILE CORNER
EASTON
BROADWAY
AVE.
RHODE ISLAND
KAY
GIBBS' ST.
HALSEY ST.
BULL
MARLBOROUGH
PARADE
O.C.R.R. OR 4TH ST.
BATTERY ST.
MARSH ST.
LONG WHARF
TANK
N
BREAKWATER
SEWER OUTLET
NARRAGANSETT

PLATE IV



CITY OF NEWPORT, R.I.
MAP SHOWING MAIN LINES OF
PROPOSED SEWERAGE SYSTEM
BY
H.A. BENTLEY
CITY ENGINEER
SCALE OF FT.

found in this vicinity is soft and much of it could be easily excavated with picks. It is proposed to put a shaft at Bellevue avenue to facilitate the work, and which, when the sewer is completed, would be used as a man hole, and also to take the discharge from the latteral sewer in Bellevue avenue.

### GRADES OF SEWERS.

The main outlet sewer has a grade of one foot in 1,200 feet.

The proposed sewer in Thames street will have a grade of one foot in 1,000.

The proposed Fourth street sewer a grade of one foot in 800.

The Parade sewer has a grade of about one foot in 100 feet.

Rate of Current. Observations of the rate of current in the main outlet sewer have been made at different times during the past year. At low water with a depth of flow of six inches, the rate was found to be about 1¾ feet per second; with one foot depth it exceeded two feet per second. With a rising tide, and only the ordinary dry weather flow in the sewer, the current is very sluggish, often being scarcely perceptible, but with a falling tide, or with the tide below the bottom of the sewer, there was always found a good even flow toward the mouth, and our observations of the tide taken for twenty-eight days show that this condition of flow is maintained during 19 2-10 hours out of the twenty-four hours. The mean time at which a point one foot above mean low water was above the level of the tide, was 13 4-10 hours. The mean time of rising tide from one foot above mean low water to high water, was 4 8-10 hours, and the mean time of falling tide from high water to one foot above mean low, was 5 8-10 hours. These calculations are a mean of the two daily tides, and it appears from the above that out of each twenty-four hours, there are but 4 8-10 hours during which there is not a sufficient rate of current to insure the self-cleansing of the sewer.

### VENTILATION.

The settling tank and the mouth of the sewer connecting with it, are to be tightly closed and covered with a small building, in which will be located the apparatus for screening the sewage, cleaning the tank, etc. This building is to be provided with ventilating apparatus at top and bottom, to induce the air currents which usually blow up a sewer from its exposed mouth, to reverse their direction. It is not expected that this would affect the motion of the air or gases contained in the sewer, for any considerable distance, but it will prevent strong winds from forcing large quantities of bad air from the nearest man hole, or unsealed catch basin, or defective house trap.

At each man hole, except where they are near enough to houses to be liable to prove offensive, perforated covers with receptacles underneath to catch falling substances, are to be placed to assist ventilation.

Experience has demonstrated the futility of the various devices for ventilating sewers by means of fans, hot air shafts, or chemical preparations applied at man holes to destroy the gases, and more reliance is now placed on methods for the diffusion of the gases at frequent intervals. It may be necessary to have special appliances at some points. At the settling tank, although it is 200 yards from the nearest house, it may be found expedient to use chemical treatment, and the building which it is proposed to locate there will afford facilities for the purpose.

### FLUSHING.

The proposed sewer in Fourth street, with its upper end in Hunter's swamp, can be amply flushed by surface water taken from the swamp.

The Middleton avenue sewer drains a large area of wet land, from which source there is a constant supply of clear water which keeps this sewer clean. This flow will be diverted at Lawrence avenue into the proposed Webster street sewer to assist in flushing it.

A flushing reservoir is to be placed in Bellevue avenue, between Bancroft avenue and Wheatland avenue, arranged with gates to flush the proposed sewers there.

At Buena Vista street and Rhode Island avenue, a reservoir is to be placed for the Gibbs avenue sewer and the latteral sewers in that section.

Wherever it is possible to flush a number of sewers from one reservoir, it is recommended that such sewers be built and operated by the Inspector of Nuisances as prescribed by the city ordinances. If no such combination is possible then the Inspector is to flush through man holes from fire hydrants.

The contract of the City with the Newport Water Works, provides for the water which is necessary for all flushing purposes.

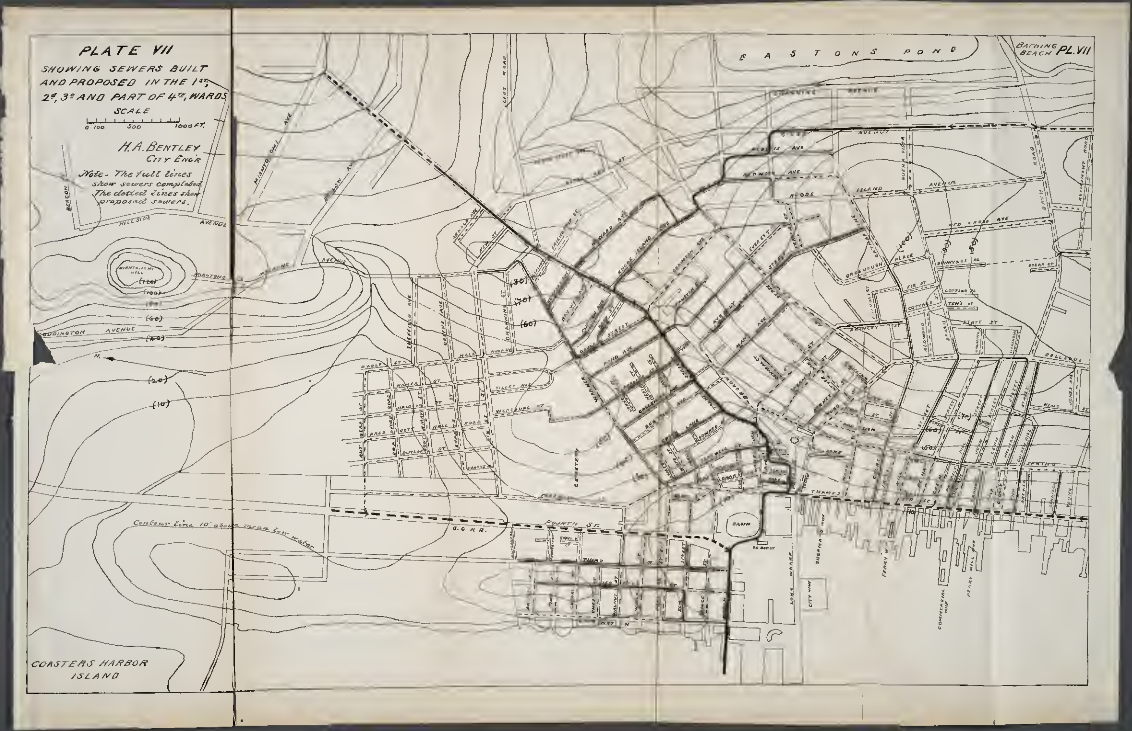
### ESTIMATES.

The first estimate, $100,438.00, includes everything necessary to complete the proposed work from the deep water beyond the breakwater to Ochre Point.

The second estimate, $143,338.00, includes all of the first estimate, and in addition, sewers in the following named streets : Fourth street, Lawrence avenue, Victoria avenue, Wetmore avenue, and Bellevue avenue as far south as it is designed extending this sewer. Ledge road, Wheatland avenue and Bellevue avenue, to the end of the sewer, which would flow in the opposite direction. Thames street, from Lee avenue to Brenton street.

With the sewers built which are provided for in Estimate No. 2, every street in the City with the exception of those on the " neck " and those in section one, would have an easily accessible main into which its drainage could be carried. Plates VII and VIII show by full black lines, sewers built which would be included in the system, while the dotted lines show the proposed connections. In all probability very many of these proposed connections will not be needed for a number of years; they are indicated on the maps to show the possibilities of the plan. On the other hand, there are quite a large number of streets urgently in need of new sewers.

There are 12 3-10 miles of pipe sewers which have been built in the past few years, that can be incorporated in this plan ; they have been built with allotments from the annual appropriations for Streets and Highways, and this method of paying for latteral sewers in streets as they are built upon, or those



## PLATE VII

SHOWING SEWERS BUILT AND PROPOSED IN THE 1ST, 2D, 3D AND PART OF 4TH, WARDS

H. A. BENTLEY
City Engr

Note - The full lines show sewers completed. The dotted lines show proposed sewers.

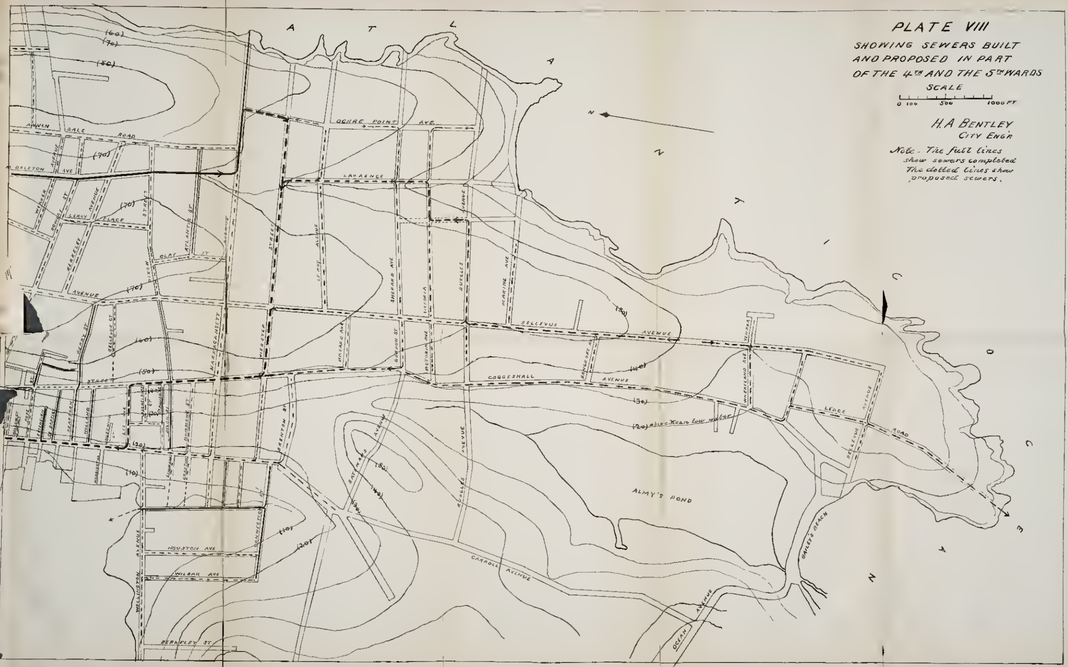


PLATE VIII

SHOWING SEWERS BUILT
AND PROPOSED IN PART
OF THE 4TH AND THE 5TH WARDS

SCALE

H. A BENTLEY
CITY ENG'R

Note - The full lines
show sewers completed
The dotted lines show
proposed sewers.

in which it is necessary to replace old sewers of improper construction, is a good one; but I think, after the experience of the difficulties encountered in the Highway Department in 1884, from using so large a portion of the annual appropriation, for building the main outlet sewer, that it would be inexpedient to attempt to build the sewers estimated for in this report, in that way, and I would therefore earnestly recommend that provision be made from other sources, and in amounts large enough to build at least one-third of the whole work at a time.

The essential thing now is to build the trunk sewer in Thames street, the settling tank at the harbor line, and to lay the submerged pipe across the harbor. With the necessary funds provided, the Thames street sewer might be built as far as Lee avenue, and the tank and pipe completed, within the year, leaving the extension of the sewer through Webster street until winter, when this work can be prosecuted as well as at any other time.

Respectfully submitted,
HENRY A. BENTLEY,
City Engineer.

The above report, in addition to extracts as found in the preceding pages, presents the results of experiments and observations made in regard to the courses of tidal currents, sections of the city not provided for by the main outlet sewer, estimates in detail of cost of construction, etc.

## REPORT OF CONSULTING ENGINEERS.

November 27th, 1885.

Alderman J. B. Cottrell,
Chairman Committee on Highways, Newport, R. I.

Sir :

The undersigned were requested by you to act as consulting Engineers in respect to the sewerage system of Newport, now under consideration and already built in part. We were furnished with nineteen specific questions, which we were requested to answer. We herewith respectfully submit our answers to said questions, in the order in which they were propounded.

Question 1. Have you sufficient knowledge of the Chesbrough Cotton plan as it stands in print, to give an opinion of its value ?

Answer. We have made ourselves familiar with the printed report and plan which are on record. The plan as designed would furnish a feasible and efficient solution of the sewerage problem at your city.

Question 2. Are the variations or changes made by Mr. Bentley to be considered improvements, or *detrimental* to the Chesbrough plan ?

Answer. Mr. Bentley has retained the essential features of the former plan. The changes made by him consist in placing the outlet of the syphon pipe a little to the North of its former location, in changing the location of the main sewer and of its storm water outlet from Long Wharf to Marsh street, in altering somewhat the routes of the main sewers, and in establishing an outlet for a small part of the Southerly portion of the city at Ledge Road. These changes do not diminish the efficiency of the system, but make it more economical to build. We therefore consider them improvements.

QUESTION 3. Which are the *improvements* and which detriments, if not all of one class ?

ANSWER. The new position of the syphon outlet is a decided improvement, and will cause less risk of nuisance. The change of location from Long Wharf to Marsh street, seems to avoid land damage, and the sewer is more conveniently reached by the branches in Washington, Second, Third and Fourth streets. The new outlet at Ledge Road is not an improvement in itself, and is desirable only for the sake of economy. We think that the limited amount of sewage discharged there, will never cause a nuisance or furnish just grounds for complaint.

QUESTION 4. Will Mr. Bentley's sewer outlet built on spiles, withstand the teredo or other sea worms in the waters where it stands ?

ANSWER. It probably will not without further protection.

QUESTION 5. How long should it last in these waters ?

ANSWER. We cannot say definitely; probably five to eight years, possibly much longer.

QUESTION 6. How long should a sewer on spiles last in any water ?

ANSWER. Under favorable conditions sewers thus built have remained in good condition for 100 years and more.

QUESTION 7. Is the construction of this outlet sewer suitable for its purpose ?

ANSWER. As to size and shape, and as a temporary expedient adopted in the interest of present economy, it is suitable for its purpose, but will need further protection. If the plan of filling about it, as suggested by Mr. Bentley, be adopted, the piles will be of service, as it would not be safe to construct the sewer on new made filling without a pile foundation.

QUESTION 8. How much effect on the structure would be occasioned by oscillation, and force of wind and waves : what effect ?

ANSWER. In time we would expect that the masonry would be shaken, and become unsafe.

QUESTION 9. Would the volume of storm water it is likely to discharge be ever enough to kill the animal life operating against the spiles ?

ANSWER. We think not.

QUESTION 10. About how long should it take as the arrangement is at present, to sufficiently saturate the spiles with sewage so as to do away with the necessity for allowing the sewage to pass out before reaching the outlet of the syphon when laid down ?

ANSWER. We doubt if the piles would ever become thus protected.

QUESTION 11. Would it be advisable and safe to drop the present outlet *two feet*, or any distance ? How much ?

ANSWER. It would not be advisable to have the present outlet any lower than it is.

QUESTION 12. Is the present *level* for the outlet as built, the *lowest* practicable point for it ?

ANSWER. Yes.

QUESTION 13. Would the extending of a wall on the line of Brigg's Wharf, and making a *solid* extension of Marsh street to the end of the outlet and returning under the same on the South, be a sufficient protection from vibration and the attacks of worms ?

ANSWER. The extension of Marsh street to the sewer outlet would furnish a satisfactory and sufficient protection to the sewer, both from vibration and the attacks of worms.

QUESTION 14. About the syphon pipe, is it practicable for this case, and which would be best, the *flexible* pipe or *flanged* pipe, and would the appliances proposed for clearing be sufficient ?

ANSWER. The syphon pipe as designed is perfectly practicable. We would prefer flanged pipe. There need not be the slightest difficulty in keeping the pipe clear. Systematic flushing will be sufficient for this.

QUESTION 15. As to the Settling Tank, will it be practicable as planned ?

ANSWER. We think that the Settling Tank will accomplish the purpose for which it was designed.

QUESTION 16. Which would be preferable, the Chesbrough plan for the Thames street sewer, running to Brenton street, with its connections South and East, or the Bentley plan for the same : which would be best, and also least expensive of the two ?

ANSWER. We think that Mr. Bentley's plan will be the least expensive and is therefore preferable.

QUESTION 17. Is the Thames street sewer as proposed by Mr. Bentley, of suitable shape and size, and is the grade sufficient ?

ANSWER. The Thames street sewer as proposed by Mr. Bentley is of suitable shape and size, and the inclination is sufficient, with proper arrangement for flushing.

QUESTION 18. Would the Thames street sewer be a *damage* to the sewerage and present drainage of the abutters ?

ANSWER. We think the Thames street sewer will be of advantage to the abutters.

QUESTION 19. What objection would there be to substituting Spring street for the trunk sewer instead of Thames street ?

ANSWER. The chief objection to building the trunk sewer in Spring Street instead of in Thames Street, is that it would make the whole system somewhat more expensive.

Although not expressly requested to do so, we desire to add an opinion concerning Mr. Bentley's estimates of cost. Judging from the data furnished to us, we consider them economical estimates, which, under favorable circumstances and with good management need not be exceeded In view however of the rise in prices during the past year, since the estimates were made, and the further increase in the cost of materials which is anticipated by dealers, we would consider the estimate safer if increased by the addition of at least ten per cent. to its present amount.

Respectfully submitted,

SAMUEL M. GRAY,
ELIOT C. CLARKE,
CONSULTING ENGINEERS.

## CITY OF PAWTUCKET.

### EXRACTS FROM THE REPORT OF THE WATER COMMISSIONERS AND SUPERINTENDENT OF WATER WORKS.

The report is for the eleven months ending January 1st, 1886. They say :

The excellent condition of every department of the works, the amount of work performed, together with the unexpended balances to the credit of this department are, we think, justification of the assumption that for successful and economical results the Pawtucket Water Works rank second to none in the country.

The taxpayers in town meeting March 2d, 1885, recognizing the necessity of an increase of storage capacity for water, appropriated, as recommended in our last annual report, $100,000 for the purpose of building a storage reservoir, subject to the advice and consent of the Town Council.

At a meeting of this board held March 10th, 1885, after a thorough investigation, a site near the Brown road, so called, situated in the town of Cumberland, was selected as the most desirable location for the storage reservoir. Lands having previously been bonded we were authorized by the Honorable Town Council to purchase such lands in the location named as were essential for the work contemplated. The lands needed were purchased, and the proper conveyances executed after having been subjected to the approval of the Town Solicitor.

Several estates were purchased, making a total of 494 acres.

Such parcels of these lands as will not be needed for flowage and for the proper protection of the pond will be sold when deemed advisable.

Your Commissioners anticipating the responsibility of the work to be performed have procured the best known engineering skill that could be obtained.

. . . . . . . . . .

### DIAMOND HILL RESERVOIR.

The reservoir when complete will flow an area of 275 acres. holding 1,600,000,000 gallons of water, equal to 500 days' supply with the present consumption.

The dam will be 1050 feet long, 45 feet high in the centre, 200 feet wide at the bottom and 30 feet wide at the top, upon which will be constructed a roadway.

The gate house of solid masonry will be 46 feet in height. The draw pipes, two thirty-six-inch iron pipes, through which the water is run, equal in amount the natural flow of the stream. The dam is to slope 2 to 1 on the inside, where it is to be paved with rubble stone, and 1½ to 1 on the outside, where it is to be turfed. Through the centre of the dam is to run a solid wall built of stone puddled in cement seven feet thick from the surface to a height of twenty feet, then six feet, five feet, four feet, to three feet at the top.

To those who are unfamiliar with the topography of the country in which the reservoir is located, it may be here stated that the site lies in the valley, between the rocky hills surrounding and adjacent to Diamond Hill plain, nature having formed an almost natural basin in the site selected.

. . . . . . . . . .

Agreeable to the recommendation made in our last report, the town appropriated $35,000 for the extension of outside mains, so called.

With this appropriation we shall be able to reach the more sparsely settled localities which have hitherto been unable to procure water, on account of the heavy expense of reaching them, and from which no revenue adequate to the outlay would be received. We have laid about two and one-half miles of pipe in localities of this description, and during the coming year shall further relieve such pressing demands as are made upon us.

The Superintendent of the Water Works reports in relation to the Diamond Hill Reservoir as follows:

The work was successfully carried on with the ordinary obstacles until about September 1st, when a trouble not entirely unforeseen presented itself. Through the meadow where the dam was to be built, what was supposed might be a solid foundation proved on excavating to be a solid, but overlying a strata that was not permanent, thus making the first insecure to build so heavy work upon. The remedy for this was found only in sheet piling, which was a slow but sure method of overcoming the difficulty, though quite expensive. As permanence and safety had governed the work thus far, this plan was decided upon without hesitancy, and four-inch hard pine planks grooved and tongued were procured and driven in two lines seven feet apart from the ledge on the easterly approach and near the gate house, to the bank on the westerly side of the dam, for a depth varying from sixteen to twenty-four feet below the excavation, to a hard gravel bottom thirty-five feet below the outlet pipes and seventy-two feet below the rollway of the dam.

The upper ends of the piling were sawed off level and cement masonry built over and on each side of the piling seventeen feet wide, was brought above the top where it was contracted to its original contemplated thickness of seven feet. After building the masonry above the water line it was securely covered on account of the approach of cold weather and left for the winter. This leaves this part of the work in a condition to be started and carried to completion when the weather of spring will admit the working of cement.

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### EXTENSIONS AND ADDITIONS TO PIPE LINES.

At a town meeting held in April a special appropriation was made of $35,000 to extend the pipes to localities not already supplied where it was deemed advisable, and connect ends of pipe already laid.

Of this appropriation, $17,711.17 has been expended, leaving $17,288.83 for further extension, and some 200 tons of 6 and 8-inch pipe on hand.

There has been laid in the different streets of the city and adjoining towns something over two miles of mains.

### STATION NUMBER TWO.

The filter gallery at Station Number Two, the source of our supply, meets all the requirements expected, and is surely worth each year its entire cost. At Station Number Two the machinery and buildings are in good order and have required no large expenditure during the year.

The engine has run 2376 hours, the water wheels 1927 hours, carrying 381,353 999 gallons of water to the pipes and Reservoir.

It will be noticed that the work performed by the water wheels is less during the past year than in the previous year, and is explained by referring to the rainfall of 1885 in comparison with that of 1884.

During the nine months ending February 1st, 1885, the rain guage showed 41 inches, while for the last eleven months only 35 inches have fallen, thus depriving us of the motive power for the wheels in a very perceptible manner, and it was deemed wise to keep the pond full for any contingency that might be in store for us, and consequently the water was not drawn so low, nor the wheels run so late in the season by more than a month.

When the new Storage Reservoir shall be completed and filled it will be practical to change one of the wheels for a larger one and use the wheels to pump a larger percentage of our water than ever before, without crippling our supply.

### STATION NUMBER ONE.

Station Number One is in good order and no extensive repairs have been called for, the heaviest expense being a set of grates and a ventilator.

### APPLICATIONS.

| | | | |
|---|---|---|---|
| Received | in Pawtucket Division | | 182 |
| " | " Lonsdale and Valley Falls Division | | 24 |
| " | " East Providence | " | 76 |
| " | " Berkeley and Ashton | " | 9 |
| " | " Central Falls District | | 71 |

Service connections have been made as follows:

| | | | |
|---|---|---|---|
| 175 | On the | Pawtucket Division. | |
| 24 | " | Lonsdale and Valley Falls Division. | |
| 77 | " | East Providence | " |
| 8 | " | Berkeley and Ashton | " |
| 71 | " | Central Falls | " |

L. B. DARLING, } Water
R. D. MASON, } Commissioners.
OLNEY ARNOLD, }

EDWIN DARDING, Superintendent of Water Works.

# EXTRACTS FROM THE REPORT OF THE COMMITTEE ON SEWERS.

After giving an historical account of the sewerage question in Pawtucket, the Committee go on to say :

"It will hardly be requisite at this time to go into a long argument explaining to and urging upon your Honorable Body the necessity for a systematic sewerage of the town, or that the time has arrived when sewers must be constructed. The arguments as to the sanitary effect, and the decreased death rate have been published and reiterated so often, that they are well known to the reading public. To again make them in this report would be but a repetition and plagiary. The repeated complaints of the health officers, the many petitions presented to your predecessors in office for relief from foul and storm water, the arguments used by former Town Councils (of which some members of the present Board were members), in their annual reports to the town meeting, and the many applications made during the fall of 1884, for permission to connect premises with the few sewers built, even before they were finished, must prove to your Honorable Body stronger than any words of ours, that sewers are a necessity."

The committee in reporting upon the sanitary condition of the city, make the following statement in regard to a cesspool, showing the danger from absorption of the contents of such receptacles :

"In making connections from the sewer to one of the best class of houses in the Main Street District, it was necessary to run the house drain through the cesspool in use for the house ; on opening the trench marks of foul matter could be plainly seen ten feet from the walls of the cesspools, the contents of which (to use a common expression) was black as ink; the stench from the cesspool was very strong ; it was plainly discernible in the air from twelve to fifteen hundred feet distant from the cesspool. This house was in a sandy district, where the conditions are supposed to be the very best for filtration and oxidization.

"These are but examples of the many bad places found in our examinations. There are many places that have come to our notice during the past year, which, in case of pestilence, could but be a breeding place. We would earnestly recommend to your Honorable Body to take immediate steps looking not to the reception but to the prevention of the entrance of cholera.

"The main point for the committee to decide was what plan or system to recommend.

### PLAN OR SYSTEM.

"There are in use three distinct systems for the removal of waste water and human excrement : The 'Dry Removal,' the 'Pneumatic,' and the 'Water Carriage' systems.

"The Dry Removal or Manual Labor System, which depends for its success upon the vigilance and care of the persons entrusted with its operation, is subdivided into the Pail or Cask System, using pails or casks made of hard wood or iron, which take the place of the common vault and are emptied at short intervals, the casks being cleaned and deodorized before returning, by the town authorities, the contents being cared for and sold for their fertilizing properties.

"The Earth Closet System in which the deodorizing effect of dry earth is made to counteract the dangerous properties of human excrement, and to prevent the escape of dangerous effluvia, also to allow the excrement to be stored upon the premises without danger for a length of time, consists in the use of an apparatus more or less complex in its design, and a box or cask placed under the seat of an improved privy. By the use of this apparatus a small quantity of dry pulverized earth is spread over the dejecture after each use of the closet. The contents of this box or cask has considerable value as a fertilizer. And the Ash Closet in which sifted ashes are used instead of dry earth.

"The above system might answer for a small town that was without water works where the surface water would care for itself without inconvenience to the inhabitants, and where the subsoil water is so low as not to be liable to cause trouble. The above system would fail in Pawtucket, as it would not care for sink and chamber slops, neither would it afford relief from surface and subsoil water without the use of a system of drains.

"The Pneumatic Systems are the Liernier, Berlier and Shone Systems, as used in France and Holland and to a small extent in England, consisting of iron pipes, in place of the brick sewers and glazed pipes in common use, by which the waste matter before it is greatly diluted by water, is conveyed to central stations, either by the use of vacuum pumps which exhaust the air from the pipes, so that upon the opening of the valve which connects each separate house receiver with the pipes, the contents of the receiver is drawn into the pipes by the vacuum, or by the use of compressed air ejectors which forces the waste matter to the central station after it is allowed to reach the pipes by gravity.

* "These systems are considered by Rudolph Hering as a branch of the separate water carriage system.

"The Pneumatic Systems, like the Dry Removal Systems, do not give relief from surface or subsoil water, without the use of a separate system of drains. Their operations would be far too expensive to recommend for Pawtucket.

"The Water Carriage System, or sewerage proper, water carriage, or the disposal of waste water and filth by the floating and carrying powers of water. *Sewerage* being defined by Worcester as 'a system of drainage by means of sewers'; *Sewage*, 'the contents of a sewer, refuse, liquids or matter carried off by sewers,' Webster; 'the water flowing in sewers.' Worcester; *Sewer*, 'a passage to convey water underground, a drain,' Worcester; 'a drain or passage to convey off water and filth underground,' Webster.

"The Water Carriage Systems are the Separate System and the Combined System; some civil engineers speak of a third as the English Separate System, which is here considered as a restricted combined system. These systems, although differing greatly in manner of construction and detail, have one object in common, *i. e.*, the speedy, efficient and economical removal in underground channels of all waste water, excrement and filth from dwellings, shops and manufactories to the point of final treatment or disposal.

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* See Rudolph Hering's report to National Board of Health, June 28, 1881.

"Separate System.—The prime principle of this system, and the main difference between this and the Combined System, is the exclusion of all ground and storm water from the sewers, allowing only excrement, kitchen slops and waste water from sinks, bath rooms, tubs, etc., to enter the sewers. The storm water in this system being allowed to flow on the surface until it has become so large in volume as to interfere with traffic or endanger private property, when it is taken into separate drains through untrapped inlets, without catch-basins to intercept the sand, and emptied into water courses at the nearest point, while the sewage has to be conveyed to some point where it will not become a nuisance. The subsoil or ground water being taken up by land drain tiles, laid in the trenches with the foul water sewers, and discharging into the storm water drains or into the nearest water course, but not into the sewers. In this system automatic flush tanks are built at the head of each branch sewer and made to discharge once or twice a day. Man-holes and lamp-holes are almost entirely done away with by this system. The advantages claimed for this system over the Combined System by the advocates of the Separate System, are:

"The decreased cost of the system consequent upon the use of smaller sewers to care for the same area.

"The increased velocity of flow over the larger sewers of the Combined System, carrying the sewage from the same area, consequently the decreased liability of the depositing of silt.

"The regularity of flow of sewage, the sewers being filled every day to their maximum depth of flow.

"The lesser and more regular amount of sewage to be cared for in case of necessity for chemical treatment or irrigation.

"The smaller surface of the sewer exposed for the formation of bacteria.

"The better ventilation, the claim being that the air above the liquid is kept in motion, is never stagnant, and by the use of untrapped soil pipes extending above the roofs of buildings a perfect ventilation is assured.

"The better results from flushing, the same amount of flushing water giving a greater body in proportion to the size of sewers, consequently better scouring effect.

"And finally, that under these conditions house wastes and water closet matter, being carried rapidly forward, take on and give out no foul odors or gases, causing less danger to health in case a house trap should be syphoned.

"The Combined System.—In sewerage on the Combined System, storm water, subsoil or ground water, excrement, kitchen slops and waste water from sinks, bath rooms, set tubs, etc., are cared for in one and the same sewer. In constructing sewers on this system man-holes or lamp-holes with perforated covers are placed at every change in line or grade, at the junction of two sewers, at intervals on straight lines, not to exceed, on brick sewers, three hundred feet, and on pipe sewers, not to exceed one hundred feet. These man-holes and lamp-holes are for purposes of cleaning, inspection and ventilation. Catch basins are built to intercept the heavy part of street washings and prevent its entrance to the sewers. The connections between the catch basins and sewers are heavily trapped to prevent the escape of sewer air at the sidewalks.

"The advantages of this system over the Separate System consist in:

"The affording of relief from storm water during wet weather.

"The absence of street gutter crossings.

"The use of but one set of drains or sewers.

"The use of shorter lines of drain tiles, the tiles discharging into the sewers at man-holes.

"The trapping of every house drain to prevent the escape of sewer air into the buildings through the soil pipes.

"The lesser danger of stoppage from small sticks, bones, etc.

"The prevention of sand from the filling up of water courses.

"The disadvantages of either of these systems can be summed up as the advantages claimed for the other system by its advocates.

"The great necessity of the town of Pawtucket was relief from water.

"Water was introduced by the town of Pawtucket in 1878. The land, already full of water, became overburdened by the two millions of gallons of water daily pumped upon it ; rain water that fell upon roofs of buildings and was formerly stored for domestic uses had, since the introduction of water by the town, become useless ; waste water became a source of great expense. Water was here and had become a nuisance ; there were numerous petitions for relief from water. We therefore decided without hesitancy to recommend *one* of the Water Carriage systems. We had before us two complete sets of plans with reports for the sewerage of the Blackstone river watershed, in the town of Pawtucket. One set made by D. L. Wilkinson, C. E., of Pawtucket, and George Alexander (late with the City Engineer of Providence), on the Combined System, as in general use in the United States. In preparing all of the plans that have been made, the topographical survey made by D. L. Wilkinson, C. E., has been used for all data for area, contour and grade. And one set made by Col. George E. Waring, Jr., M. Inst. C. E., on the Separate System as patented in 1881. Before deciding which plan, if either, to adopt, we made a thorough examination of existing drains, to determine as to their use in a system of sewerage ; we examined the general topography of the town, we then examined each drainage district separately, inquiring as to the necessity for sewers for surface drainage, and the actual necessities of the district, applying to each district the principles of the two systems."

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The Committee then give at considerable length and with commendable clearness of description, an account in detail of the examinations made.

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In regard to the disposal of sewage, the Committee remark, that

"There are three modes of disposal of the sewage of large cities, where the water-carriage systems are in use :

"Precipitation by the use of chemicals, with or without subsequent filtration on a very small area; irrigation, and the emptying of the sewage into large bodies of moving water.

"It will not be necessary after the large amount of arguments printed in the daily and scientific papers within the last three months, to go into a long description of the different modes. The common practice where cities are situated on large bodies of water, is to dispose of the sewage by carrying it below the city and emptying into the water as remote from dwellings as possible, and where it will do the least harm. The natural, the most direct, and the cheapest way (for the present) to dispose of the sewage of Pawtucket would be to follow the natural slope of the districts to be drained and discharge into the Blackstone and Seekonk rivers. To discharge sewage to any amount into the Blackstone river above the upper dam would be to make an elongated cesspool of the river between the upper dam and the Central Avenue bridge. There are many hours at a time during the dry summer season when there is no perceptible current to the river, and any solid matters carried by the sewers instead of being washed over the dams would be deposited upon the banks or bed of the river, causing very disagreeable odors and danger to public health. We feel that it would be very reprehensible to recommend turning any more filth into the already filthy waters of the Blackstone river. This river, before it enters Rhode Island, is probably more polluted than any other in Massachusetts.

"We find that in the Seekonk river, below the wharf of the Pawtucket Gas Co., that there are extensive mud flats, bare at low tide. These flats extend nearly to Red Bridge.

"Discharging sewage an flats bare at low water, or into water of little depth will make the vicinity of the outlet offensive, which bad effects will constantly increase.

"In consultation with eminent sanitary engineers we found that they were unanimous in the opinion that the town landing was the best place to dispose of the sewage by river or water disposal, that we could obtain without going below the city of Providence. We decided to recommend the town landing as the present outfall of the system of sewers recommended by your committee. At this place whenever there is any water flowing over the lower dam, or when either one of the mills on that dam or Sargent's trench are running, the water sets over to the west side of the river with a strong outward flow. It may be safely said, that at this place there is always a strong under outward current, even against an incoming tide. We proposed to empty the sewage at the bottom of the river, which at this place will be thoroughly mixed, diluted and carried below Division street bridge, and below the thickly settled portion of the town.

"In recommending the town landing as an outfall, we do not for one moment consider this a permanent arrangement, but an arrangement that will *do*, probably for a number of years.

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"The Town Landing is so situated that the sewage from the whole Blackstone river watershed in Pawtucket, can be collected here at a reasonable expense, and in case of necessity for pumping for irrigation, this would make a good place for a pumping station, as it is convenient to the coal wharves. A pumping station at this point would require a shorter force-main to deliver the sewage on Seekonk Plains than almost any other place on the river, there would also be no necessity for the pipes to be laid on the bed of the river if this place was used, as the river crossing could be made on Division Street bridge. If in the future, it is decided necessary to carry the sewage farther down the river, the bottom of the sewer on Lumber street where the sewer turns to go upon the town landing, is high enough (10.288 feet) above mean high water, to give a good grade and strong flow for the sewer for a long distance.

"Whatever place is finally decided upon, the sewage will have to be treated either by precipitation with chemicals and filtration, or by irrigation, preferably by irrigation, as there are large tracts of land within one mile of the river that wiil not be built upon for many years, and are worthless for agriculture, the soil of which would offer the very best condition for irrigation.

"The City Council of Providence are making strenuous efforts to prevent the pollution of the Woonasquatucket and Moshassuck rivers. Plans are being perfected by the City Engineer to intercept the sewage from the city that is now emptied into the Providence and Seekonk rivers.

"It is but fair to suppose that after Providence has spent millions of dollars to care for its own sewage, and to prevent the pollution of the Providence and Seekonk rivers, it will try to prevent the town of Pawtucket from polluting the waters of the Seekonk river before it reaches that city.

"After deciding upon the place of outfall, the next most important point to be decided, was, upon the admission or non-admission to the sewers of storm water, and, if admission, how much? It was important, as upon this decision depends the system to adopt, and the cost of construction.

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"The city on both sides of the river is admirably adapted for the removal of its sewage through small pipes, and the grades of its streets are such as to enable the removal of surface water with little trouble or inconvenience, save along certain lines where the accumulation of water coming from considerable districts would be troublesome were its course to continue in the street gutters.

"We decided to admit storm water to sewers, but in a restricted manner, *i. e.*, we decided to admit storm water from the roofs of buildings, and from the surface of streets, 'when the accumulation of water coming from considerable districts would be troublesome were its course to continue in the street gutters.'

"We do not think, even though we were positive the regulations could be enforced, it would be advisable to exclude from the sewers the storm water that falls upon the roofs of buildings.

"The admission of roof water to the sewers through the house drains can, by a judicious arrangement, be made of great benefit in flushing and keeping clean the house drains, giving a continuous flush in time of rain, washing them out better than can be done by any other means alone. It also assists in keeping the main sewers clean.

"Baldwin Latham, C. E., M. Inst. C. E., in his standard work on Sanitary Engineering, says: * 'Sewers are more thoroughly cleaned with pure water than with sewage. The admittance of rainfall into sewers is of considerable value as a flushing agent.'

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* Edition of 1877; page 34.

"Messrs. E. S. Chesborough, C. E., Moses Lane, C. E., and Charles F. Folsom, M. D., in their report on the sewerage of Boston, recommend *

"*Second.* 'That rain water spouts be untrapped and discharged into the sewers, provided that their upper end be remote from windows or the tops of chimneys communicating with rooms occupied by human beings.'

"Rudolph Hering, Sanitary Engineer, in his report to the honorable Common Council of the city of Binghampton, N. Y., after giving four reasons for the admission of storm water from the roofs of buildings to the sewers, closes by saying: † 'For these reasons I would recommend to you to have some of the roof water from every house led into all of the sewers. The slightly increased size of pipes for this purpose—there being no increase of excavation necessary—is repaid not only by a correspondingly less size of special rain water channels, and a reduction of the amount of water running through the yards and in the gutters in summer, and of less ice about them in winter, but also by a better cleansing of the main house pipes and sewers, which is a most essential consideration. After many years experience in England, this practice is now advocated there by the best authorities.' The admission to the sewers of water from the roofs of buildings presents several advantages, it removes the danger to foundations of large buildings from settling, caused by storm water falling upon the ground from large roof areas. It assists the ground in caring for storm water.

"The extensive use of concrete within the past few years having greatly reduced the ground area, that will allow storm water to soak away. The storm water that has had to be carried off or soak away has been largely added to in the settled portion of the town since the introduction of Abbott Run water, as storm water is no longer stored in tanks and cisterns for domestic use. It is safe to say, that on one-half of the area covered by this report, there is trouble from subsoil or ground water, more especially on the high laying lands where good drainage should naturally be expected, and to be able to relieve these lands of even the small proportion of rainfall that would fall upon the roofs of buildings, would be a decided advantage, and, finally in this climate storm water from the roofs of buildings should not be allowed to run across sidewalks during the winter months, owing to the danger from ice. Ice and snow on the roofs of buildings will thaw in the sun, when the weather is so cold as to freeze the water almost as soon as it reaches the ground; this danger has been greatly augmented within a few years by the extensive use of tar concrete for sidewalks.

"The reasons for our recommending to keep on the surface the water that falls on the street, until the accumulation of water coming from considerable districts would be troublesome, were partly on account of the reduced cost, partly from sanitary reasons connected with the sewers, and partly to secure to the streets the benefit of the cleaning and scouring effect of rainfall.

### CATCH BASINS.

"After deciding to admit to the sewers storm water from the surface of the street, it became necessary to provide some way for the water to get into the sewers.

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* City of Boston, doc. No. 3, 1876.

† Report, 1882; page 3.

"We decided to admit storm water from the surface of the streets through catch basins, the inlets to be at the curb-line, the connection between the sewer and catch basin to be heavily trapped to prevent the escape of steam and gas. This is the common practice.

"If we had not allowed the water from the streets to enter through catch basins but through shutes, all of the sand that is washed from the surface of the streets would have entered the sewer and been carried directly into the rivers and harbors. The effect of this would have been to fill up the basin above the upper dam, and near the entrance to the mill flumes with sand; also the harbor below the dams.

"There is no doubt but what the grades of the sewers are sufficient to prevent the sand settling in the sewers.

### INTERCEPTING SEWERS AND OVERFLOWS.

"Having determined what disposal to make of the sewage and the place of out fall, also to admit storm water to the sewers, and the manner and proportion in which it should be admitted, it becomes necessary to determine upon the best plan to get the sewage to the outfall, and provide for the storm water.

"To accomplish this we proposed to build an intercepting sewer of sufficient capacity to amply provide for the sewage and a small portion of the rainfall from the business part of the district drained. To provide for the rainfall as a whole, we propose to build overflows into the Blackstone and Seekonk rivers.

"These overflows discharging into the Blackstone river cannot be objectionable. Without doubt the storm water will be mixed with the sewage, but the first flow of rain will flush most of the sewage in the pipes into the intercepting sewer, where it will flow rapidly to the outlet, before the intercepting sewer is filled enough to require aid of the overflows; the remainder will be greatly diluted before it overflows into the river; the small amount of sewage escaping during this time could not be objectionable. Rudolph Hering advised overflows in the city of Binghampton, N. Y.: 'Such escapes or overflows into the natural water courses, if properly located have not been found in the least objectionable, and their use is extensive.'

"In recommending the construction of the sewerage system of Pawtucket, we recommended that the intercepting sewers should be built before the main sewers and overflows, as the work could be done more cheaply, and there would be more surety of the sewer being constructed than if it had been left until after the main sewers and overflows were constructed and in use.

"It has been the common practice in constructing sewerage systems to construct the overflows and main sewers, and leave the intercepting sewer until the outcry against the overflows had become so loud as to be no longer passed unheeded. This has been the cause in many cities of so much complaint against the sewers and the often-repeated assertions that the system is a failure, when in fact the city has made the failure instead of the engineer, in not completing the system in its most important feature. This was the case in the city of Providence.

## SUBSOIL DRAINAGE.

"One of the direct benefits that are desired to be obtained by sewerage is the drainage of the subsoil, the lowering of the level of the ground water, and the drying and ærating of the subsoil. The effect of this is to make the soil dryer, warmer and more healthy for habitation.

"On nearly two-thirds of the area covered by this report, there are wet cellars caused by ground water.

"The effect of building sewers in a district, even though no special provision was made for subsoil drainage, would be to lower to a small extent the level of the ground water, the water percolates through the joints of the pipe sewers, and through brick work even when special care is taken to make the joints tight.

"To be able to lower the level of the ground water still more, and to get the full benefits of sewerage, it is proposed to lay drain tile in the same trench with the sewers in all districts where there is any trouble from ground water. The additional cost of these tile is small ; it will not exceed on the average three and one-half cents per foot when laid. Where brick sewers are constructed in wet land, invert blocks are used instead of drain tile, as they keep the work dry without pumping during construction. Whether these drain tiles should discharge into sewers, or the water be carried off and discharge by itself is a matter of cost, and has nothing to do with the sanitary effect.

"We recommend where subsoil water can be led to the overflows at a small cost that it should be done, for when it becomes necessary to pump the sewage for irrigation, there will be so much less water and cost of pumping to provide for. . . . . . . . . .

## VENTILATION, MAN HOLES AND LAMP-HOLES.

"It is not supposed, with the thorough flushing and cleansing that the sewers will receive, that sewer gas will form in any great amount, although it will to a small extent, but there is necessity for ventilation from other causes.

"The motion of the air in a sewer is controlled to some extent by friction caused by the movement of the surface of the sewage. It is also controlled by the barometrical difference between the atmospheric air and the air contained in the sewer. In fact there are many conditions that go to cause the constantly changing, varying motion of the air in a sewer. If there was no chance for a free admission and escape of air there would be compression and dilation of the air in the sewer at every rise and fall in the volume of sewage. If there was no escape for the imprisoned air, as the sewer was filled it would be compressed and occupy space that should belong to the sewage, and thus reduce the effective cross-section of the sewers.

"That sewer gas has an evil effect upon the public health has been well proven. The term sewer gas covers not only the noxious gases generated in the public sewers, but those from house drains, cesspools and privy vaults. These gases, when allowed freely to escape into houses, cause typhoid fever, diphtheria, diarrhœa, nervous prostration and headache.

"To prevent the escape of this gas into buildings, and to ventilate and allow for the constantly changing volume of air in the sewers, there have been numerous mechanical plans tried, such as ventilating chimneys, exhaust fans, the connecting of a ventilating shaft to the furnaces and chimneys of large manufactories, etc., but these have all proved to have but a local effect in ventilating. Certain chemical agents, such as lime, chlorine gas, sulphurous acid, etc., have been introduced into sewers to give off gases which destroy the dangerous properties of sewer gas. None of these have effectually accomplished the desired end.

"The general conclusion arrived at by the Metropolitan Board of Works of London, after four years experimenting on the ventilation of sewers, was :

"'That the most efficacious and widely applicable mode of preventing the escape of offensive effluvia from the sewers, is to provide them with such a copious supply of water that the decomposing matter within them shall be diluted and removed before any noxious gases have been generated.

"'That ventilation by air-shafts from the sewers into the centers of streets is a great improvement upon the old system of ventilation through the gully gratings at the sides of the streets."

"Baldwin Latham, author of Sanitary Engineering, the advising engineer on the Dantzic and many other important sanitary works, says:

"* 'The ventilation of sewers by means of shafts communicating with the crown of the sewer and terminating about the center of the roadway, has been carried out in London and many other places. In the opinion of the author, this system of ventilating public sewers, when ventilators are provided in sufficient number, and furnished with materials for absorbing and destroying the escaping gases, is decidedly the best system that can be adopted. The objection raised against the use of simple openings into the sewers, is that deleterious gases escape from them, and are left to take their own course comparatively uncontrolled. In combating this objection it should be borne in mind that gases escaping in the centers of roads become considerably diluted before they can arrive at the footpaths or houses. The amount of dilution, supposing the gas to be uniformly distributed through the atmosphere, would be proportional to the cube of the distance from the point of discharge, and dilution means in this matter something more than the dilution of effect. These open ventilating shafts act, at certain periods, both as up-cast and down-cast shafts.'

Rudolph Hering, in his report to the National Board of Health, after examining the various systems in use in Europe, gave as his conclusion on the subject of ventilation :

"† 'The most economical and effective method of ventilation is by short shafts in the streets placed at frequent intervals. The next best method is a free communication with the outer air, through the soil pipes of houses, under the proviso that they are properly constructed.'

"For the purpose of ventilating the sewers in Pawtucket it was decided to construct on the brick sewers man-holes, and, on the pipe sewers man-holes and lamp-holes.

"A man-hole is a brick shaft, capped with an iron frame having a perforated cover, built from the crown of the sewer to the surface of the street. A lamp-hole is a glazed pipe-shaft, six inches in diameter, capped with an iron frame with a perforated cover, built from a **T** connection at the top of the pipe sewers to the surface of the street.

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* Page 41; edition, 1877.

† Page 128.

"These man holes and lamp-holes serve the threefold purpose of ventilation, inspection and cleaning.

### HOUSE DRAINS AND TRAPS

"While upon the subject of ventilation, we will consider house drains and their ventilation, as that which will effect one will effect the other. The main object of the house drain and traps is: To remove from the inside of the house as quickly as possible, all liquid and semi-liquid wastes and convey them to the sewer, also to prevent the escape of the air from the sewer into the house.

"The first object is often defeated by the use of drain pipes so large in diameter as to become channels of deposit, instead of channels of carriage; a four-inch drain pipe is sufficient in size to take the sewage from the largest dwelling in Pawtucket. A four-inch pipe will discharge about fifteen cubic feet of sewage per minute,=900 cubic feet, 6732 gallons per hour; it will discharge in one hour the amount of sewage provided for 90 persons for twenty-four hours, and to spread the sewage made by a family of six, eight, or ten persons over the invert of an eight or ten-inch pipe, as has been the practice is to make the house drain an elongated cesspool to be flushed by rain.

"We recommended the house drain to be four inches in diameter, with a half **S** or running trap provided with a fresh air inlet placed near the street line, and that all soil and waste pipes be extended through and above the roof of the house. One reason of our recommending that the house drain be four inches in diameter, instead of a size more nearly commensurate with the daily flow of sewage, was that the outlet pipes of water closets are universally four inches in diameter, and we did not think it advisable to make the discharge pipe smaller than the inlet pipes, as a solid that would easily pass the water closet valve would obstruct a smaller pipe.

"The reason for recommending a trap at or near the street line was to prevent the escape of sewer air into the house drain, and by the aid of the fresh air inlet in case of a stoppage in the house drain, we are able to determine whether or not it is in the street.

Col. Waring in the Century for November, gives the reason for using a fresh air inlet with examples so terse that we give his reason*: "There can be no real ventilation of the drainage system if it is open only at the top. A bottle cannot be ventilated by removing its cork, nor will a chimney draw if it has no opening at the bottom." Another use of the fresh air inlet, is to allow the free escape of air from the house drain when it is full of storm water; also to allow the escape of the sewer air in case the seal of the large trap be broken. The fresh air inlet, together with the extension of the soil pipe through the roof, gives a free circulation of air through the house drains.

"The whole subject of house drainage, house drains, ventilation and sanitary appliances are treated in a plain, thorough and comprehensive manner by Wm. Paul Gerhard, in the fourth annual report of the State Board of Health of the State of Rhode Island, and should be read by our citizens who are contemplating making connections with the sewers or changing their plumbing. . . . . .

HENRY A. SMITH,
ALONZO E. PIERCE, } *Committee on Sewers.*
CHARLES R. BUCKLIN,

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* Sanitary Engineer, 1885; page 79.

# METEOROLOGY.

The following tables are introduced for the purpose of comparing the large prevalence of certain diseases at different periods of the year, with the temperature, the barometric pressure, the relative humidity, prevailing direction of the wind and other conditions of the atmosphere, and also the amount of rainfall during each month of the year.

The first table is compiled from the monthly reports of the City Engineer of Providence, and shows the mean maximum and minimum temperatures of the different months, and the extremes and average daily ranges of the same.

The second table will give a more comprehensive monthly summary of observations during 1885, including a larger number of atmospheric conditions for each month, and also yearly summaries for each of the four preceding years.

It is condensed from the annual summary of monthly observations at Hope Reservoir and the City Hall.

*Temperature, Rainfall and prevailing direction of the wind, for each month during the year 1885, at Providence, R. I.*

| 1885. | TEMPERATURE. | | | | | | | Total amount of Rain or Melted Snow in inches. | Prevailing Direction of the Wind. |
|---|---|---|---|---|---|---|---|---|---|
| | Monthly Mean. | Monthly Maximum. | Monthly Minimum. | Monthly Range. | Greatest Daily Range. | Least Daily Range. | Average Daily Range. | | |
| January . . . | 28.2 | 35.9 | 20.1 | 59.5 | 34.0 | 6.0 | 15.8 | 7.02 | N. W. |
| February . . | 21.1 | 28.5 | 14.0 | 46.0 | 35.5 | 8.0 | 14.5 | 4.66 | N. W. |
| March . . . . . | 28.3 | 36.5 | 20.2 | 53.5 | 26.0 | 10.0 | 16.3 | 1.67 | N. W. |
| April . . . . . . | 48.0 | 58.0 | 39.2 | 53.5 | 34.0 | 4.5 | 18.8 | 3.43 | N. W. & S. |
| May. . . . . . | 5.64 | 65.3 | 47.7 | 51.5 | 33.5 | 8.5 | 17.4 | 4.25 | N. E. |
| June . . . . . . | 68.2 | 79.1 | 58.3 | 46.0 | 28.5 | 10.5 | 20.8 | 2.50 | N. W. & S. W. |
| July . . . . . . | 74.1 | 85.2 | 65.3 | 39.5 | 26.5 | 9.5 | 19.9 | 2.65 | S. |
| August . . . . | 69.2 | 79.7 | 61.3 | 42.0 | 29.0 | 7.5 | 18.4 | 4.78 | S. & Variable. |
| September . | 60.6 | 70.7 | 50.6 | 43.0 | 28.0 | 13.5 | 20.1 | .80 | S. & S. W. |
| October. . . . | 52.1 | 60.2 | 44.2 | 37.0 | 25.0 | 9.0 | 16.0 | 5.51 | Variable. |
| November . | 44.1 | 50.2 | 38.1 | 44.0 | 21.5 | 5.5 | 12.1 | 3.59 | S. W. & N. |
| December . . | 33.6 | 40.2 | 26.5 | 41.5 | 25.0 | 7.0 | 13.7 | 2.71 | W. & N. W. |

Mean temperature for the year 1885, was 48.7 Fah. Total amount of rain or melted snow, 43.57.

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NOTE.—The maximum and minimum thermometers are not read on the Sabbath; therefore the daily ranges were computed, considering the reading from Saturday to Monday as one.

# SUMMARY OF METEOROLOGICAL OBSERVATIONS AT HOPE RESERVOIR AND CITY HALL,

## FOR THE YEAR 1885.

| MONTHS. | BAROMETER. Reduced to Sea Level, and to 32°. | | | | THERMOMETERS. | | | | Relative Humidity. | WIND. | | | | | | | | | | WEATHER. | | | | | | RAIN AND SNOW. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Prevailing Direction. No. of Days it was | | | | | | | | | | Atmosphere. No. of Days it was | | | | | | | |
| | Mean. | Maximum. | Minimum. | Range. | Mean. | Maximum. | Minimum. | Range. | Mean. | N. | N. E. | E. | S. E. | S. | S. W. | W. | N. W. | Variable. | Mean Velocity. | Clear. | Fair. | Variable. | Rain or Snow. | All others. | Mean amount of Cloud. | Amount of Rain or Melted Snow in inches. | Depth of Snow in inches. |
| January | 30.05 | 30.82 | 29.24 | 1.58 | 28.2 | 58.5 | —1. | 59.5 | 71 | 0 | 1 | 0 | 0 | 3 | 6 | 4 | 9 | 8 | 10 | 7 | 8 | 2 | 14 | 0 | 4.9 | 7.02* | 9.00 |
| February | 29.93 | 30.41 | 28.99 | 1.42 | 21.1 | 49. | 3. | 46. | 68 | 6 | 1 | 1 | 1 | 1 | 1 | 4 | 9 | 4 | 10 | 9 | 6 | 1 | 11 | 1 | 4.2 | 4.66* | 11.50 |
| March | 30.00 | 30.50 | 29.42 | 1.08 | 28.3 | 58. | 5. | 53. | 65 | 5 | 0 | 0 | 1 | 4 | 1 | 5 | 10 | 5 | 10 | 3 | 12 | 3 | 13 | 0 | 4.1 | 1.67* | 5.50 |
| April | 29.99 | 30.52 | 29.18 | 1.34 | 48. | 82. | 28.5 | 53.5 | 62 | 5 | 0 | 1 | 0 | 7 | 1 | 4 | 7 | 5 | 11 | 5 | 8 | 2 | 14 | 1 | 3.9 | 3.43* | .25 |
| May | 29.99 | 30.30 | 29.50 | .80 | 56.4 | 85.5 | 34. | 51.5 | 72 | 3 | 7 | 3 | 4 | 5 | 1 | 1 | 4 | 3 | 10 | 2 | 15 | 0 | 13 | 1 | 5.6 | 4.25 | ...... |
| June | 29.96 | 30.28 | 29.44 | .84 | 68.2 | 92.5 | 46.5 | 46. | 65 | 0 | 1 | 0 | 1 | 6 | 7 | 2 | 8 | 5 | 10 | 2 | 20 | 0 | 8 | 0 | 3.9 | 2.50 | ...... |
| July | 29.96 | 30.23 | 29.64 | .59 | 74.1 | 93.5 | 54. | 39.5 | 72 | 1 | 1 | 0 | 1 | 11 | 5 | 2 | 5 | 5 | 8 | 2 | 19 | 1 | 9 | 0 | 4.5 | 2.65 | ...... |
| August | 29.98 | 30.28 | 29.66 | .62 | 69.2 | 89.5 | 47.5 | 42. | 76 | 4 | 1 | 2 | 1 | 5 | 4 | 2 | 4 | 8 | 8 | 0 | 17 | 0 | 14 | 0 | 5.3 | 4.78 | ...... |
| September | 30.04 | 30.40 | 29.21 | 1.19 | 60.6 | 83. | 40. | 43. | 74 | 5 | 2 | 0 | 2 | 5 | 5 | 3 | 5 | 3 | 8 | 6 | 16 | 1 | 7 | 0 | 3.4 | .80 | ...... |
| October | 30.02 | 30.34 | 29.25 | 1.09 | 52.1 | 70.5 | 33.5 | 37. | 80 | 4 | 5 | 1 | 1 | 5 | 2 | 2 | 2 | 9 | 8 | 4 | 15 | 3 | 9 | 0 | 4.9 | 5.51 | ...... |
| November | 29.91 | 30.36 | 29.48 | .88 | 44.1 | 67. | 23. | 44. | 76 | 6 | 2 | 0 | 0 | 2 | 6 | 5 | 5 | 4 | 9 | 2 | 11 | 2 | 15 | 0 | 6. | 3.59* | ...... |
| December | 29.95 | 30.71 | 29.08 | 1.63 | 33.6 | 58.5 | 14. | 44.5 | 74 | 7 | 0 | 0 | 2 | 2 | 4 | 8 | 6 | 2 | 11 | 3 | 10 | 2 | 15 | 1 | 5. | 2.71* | 1.00 |
| Means for the year | 29.98 | .... | .... | 1.09 | 48.7 | .... | .... | 46.6 | 71 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .... | .... | .... | .... | .... | .... | 4.6 | ....... | ...... |
| Totals for the year | .... | .... | ... | ... | .... | .... | .... | .... | .... | 46 | 21 | 8 | 14 | 56 | 43 | 42 | 74 | 61 | 9 | 45 | 157 | 17 | 142 | 4 | .... | 43.57 | 27.25 |
| Extremes | .... | 30.82 | 28.99 | 1.83 | .... | 93.5 | —1. | 94.5 | .... | .. | .. | .. | .. | .. | .. | .. | .. | .. | .... | .... | .... | .... | ... | .... | .... | ........ | ...... |

## *Yearly Summary for 1884.*

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Means for the year.. | 30.01 | .... | .... | 1.05 | 49.5 | .... | .... | 49.2 | 76 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 9 | .... | .... | .... | .... | .... | 5.3 | ........ | ...... |
| Totals for the year.. | .... | .... | .... | .... | .... | .... | .... | .... | .... | 57 | 22 | 8 | 14 | 42 | 60 | 27 | 63 | 73 | .... | 36 | 127 | 26 | 166 | 11 | .... | 57.50 | 44.50 |
| Extremes .......... | .... | 30.79 | 28.93 | 1.86 | .... | 94. | —10. | 104. | .... | .. | .. | .. | .. | .. | .. | .. | .. | .. | .... | .... | .... | .... | .... | .... | .... | ........ | ...... |

## *Yearly Summary for 1883.*

Mean Force.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Means for the year.. | 30.05 | .... | .... | 1.08 | 48.2 | .... | ... | 45.5 | 72 | .. | .. | .. | .. | .. | .. | .. | .. | . | 2.2 | .... | .... | .... | .... | .... | 5.1 | ........ | ...... |
| Totals for the year.. | .... | .... | .... | .... | .... | .... | .... | .... | .... | 43 | 31 | 7 | 11 | 44 | 51 | 35 | 70 | 73 | .... | 45 | 136 | 17 | 156 | 11 | .... | 45.71 | 73.00 |
| Extremes .......... | .... | 30.77 | 28.88 | 1.89 | .... | 93. | —9.5 | 102.5 | .... | .. | .. | .. | .. | .. | .. | .. | .. | .. | .... | .... | .... | .... | ... | .. . | .... | ........ | ...... |

## *Yearly Summary for 1882.*

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Means for the year.. | 30.03 | .... | .... | 1.03 | 49.2 | .... | .... | 46. | 72 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2.2 | .... | .... | .... | .... | .... | 5.3 | .... ... | ...... |
| Totals for the year.. | .... | .... | .... | ... | .... | .... | .... | .... | .... | 54 | 26 | 2 | 16 | 46 | 39 | 40 | 82 | 60 | .... | 44 | 148 | 31 | 136 | 6 | .... | 51.84 | 74.00 |
| Extremes .......... | .... | 30.79 | 29.22 | 1.57 | .... | 95. | —11. | 106. | .... | .. | .. | .. | .. | .. | .. | .. | .. | .. | .... | .... | .... | .... | .... | ... | .... | ........ | ...... |

## *Yearly Summary for 1881.*

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Means for the year.. | 30.00 | .... | .... | 1.08 | 49.6 | .... | .... | 44.5 | 73 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2.15 | .... | .... | .... | .... | .... | 5.1 | ........ | ...... |
| Totals for the year.. | .... | .... | .... | .... | .... | .... | .... | .... | .... | 47 | 33 | 12 | 9 | 50 | 47 | 20 | 80 | 67 | .... | 80 | 73 | 54 | 130 | 28 | .... | 52.96 | 27.50 |
| Extremes .......... | .... | 30.80 | 28.97 | 1.83 | .... | 96. | —4. | 100. | .... | .. | .. | .. | .. | .. | .. | .. | .. | .. | .... | .... | .... | .... | .... | .... | .... | ........ | ...... |

The force of the wind and amount of cloud are expressed approximately in figures from 0 to 10. * Snow and rain.

*Statement showing the air pressure, reduced to sea-level and gravity, the temperature, precipitation, and the prevailing direction of the wind, for each month of the year 1885, at Block Island, R. I.*

| Month. 1885. | Pressure. | | | Temperature. | | | | | | | Precipitation, inches. | Prevailing Direction of Wind. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Daily Range. | | | | |
| | Mean. | Highest. | Lowest. | Mean. | Maximum. | Minimum. | Absolute Range. | Mean. | Greatest. | Least. | | |
| January | 30.059 | 30.798 | 29.336 | 31.5 | 58.8 | 5.5 | 53.3 | 17.4 | 40.0 | 5.0 | 5.30 | S. W. & N. W. |
| February | 29.931 | 30.427 | 29.053 | 24.2 | 53.0 | 6.6 | 46.4 | 13.8 | 33.3 | 7.0 | 3.68 | N. W. |
| March | 30.000 | 30.513 | 29.487 | 29.8 | 53.1 | 8.6 | 44.5 | 14.1 | 24.3 | 5.6 | 0.81 | N. W. |
| April | 29.993 | 30.545 | 29.233 | 44.6 | 69.9 | 27.4 | 42.5 | 14.6 | 23.5 | 5.9 | 2.65 | S. W. |
| May | 29.973 | 30.302 | 29.492 | 50.7 | 75.8 | 37.9 | 37.9 | 11.0 | 20.4 | 4.6 | 4.14 | N. E. |
| June | 29.974 | 30.298 | 29.433 | 62.7 | 77.4 | 48.0 | 29.4 | 13.2 | 19.3 | 6.3 | 1.90 | S. W. |
| July | 29.959 | 30.216 | 29.676 | 70.6 | 87.8 | 55.3 | 32.5 | 12.7 | 20.0 | 5.7 | 0.86 | S. W. |
| August | 29.967 | 30.261 | 29.691 | 68.7 | 81.9 | 52.9 | 29.0 | 10.5 | 18.5 | 5.4 | 3.15 | S. W. |
| September | 30.044 | 30.397 | 29.279 | 61.4 | 77.7 | 42.7 | 35.0 | 11.5 | 19.1 | 6.1 | 1.60 | S. W. |
| October | 30.023 | 30.316 | 29.272 | 54.5 | 68.9 | 35.3 | 33.6 | 10.6 | 21.8 | 4.3 | 5.81 | S. W. |
| November | 29.906 | 30.329 | 29.498 | 47.1 | 64.0 | 31.4 | 32.6 | 9.1 | 17.8 | 2.5 | 4.79 | S. W. |
| December | 29.949 | 30.713 | 29.133 | 36.7 | 57.4 | 17.4 | 40.0 | 12.6 | 31.5 | 4.9 | 4.68 | N. W. |

SIGNAL OFFICE, WAR DEPARTMENT, WASHINGTON CITY.

Mean temperature, 48.5. Total amount of rain and melted snow, 39.37 inches.

# STATISTICS OF CONSUMPTION IN RHODE ISLAND.*

BY CHARLES H. FISHER, M. D.,

SECRETARY OF THE STATE BOARD OF HEALTH.

It is solely the object of this paper to present the statistics of Pulmonary Consumption in Rhode Island as a cause of death, and the relations of the various circumstances and conditions of the decedents, to mortality therefrom. The numbers are not large in magnitude; the territory from which the facts are derived is not large in extent, and the period of time which they cover extends only to twenty-five years.

The facts presented, however, are complete and absolute, and may furnish material not only for comment and speculation, but also positive data for some definite conclusions.

Table I will exhibit the relations of sex, season and parentage. Table II the various periods of life, and Table III, the various occupations of the decedents.

The diagram will present the proportional mortality of a number of the most prominent causes of death in comparison with consumption.

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* Substantially as read before the American Public Health Association at the meeting held in Washington, D. C., Dec. 7-11, 1885.

## TABLE I.

*Giving the number of deaths from Pulmonary Consumption in Rhode Island, by months, sex and parentage, in aggregates of five years each, from 1860 to 1884, inclusive; also, various summaries.*

| PULMONARY CONSUMPTION. | Jan. | | Feb. | | Mar. | | April. | | May. | | June. | | July. | | Aug. | | Sept. | | Oct. | | Nov. | | Dec. | | PARENTAGE. | | SEX. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | Am. | For. | M. | F. | Total. |
| YEARS. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1860 to 1864, inclusive .......... | 103 | 95 | 94 | 108 | 97 | 122 | 102 | 124 | 78 | 104 | 92 | 101 | 86 | 95 | 99 | 125 | 86 | 145 | 93 | 130 | 107 | 110 | 122 | 126 | ....... | ....... | 1,159 | 1,385 | 2,544 |
| 1865 to 1869 " .......... | 99 | 113 | 90 | 108 | 114 | 130 | 107 | 123 | 94 | 103 | 110 | 97 | 90 | 121 | 110 | 133 | 108 | 132 | 107 | 134 | 110 | 125 | 105 | 127 | 1,575 | 1,115 | 1,244 | 1,446 | 2,690 |
| 1870 to 1874 " .......... | 128 | 116 | 92 | 139 | 106 | 129 | 103 | 127 | 117 | 142 | 79 | 134 | 89 | 134 | 98 | 130 | 103 | 134 | 93 | 132 | 92 | 133 | 117 | 141 | 1,507 | 1,301 | 1,217 | 1,591 | 2,808 |
| 1875 to 1879 " .......... | 127 | 170 | 104 | 136 | 145 | 166 | 121 | 146 | 131 | 176 | 119 | 145 | 114 | 137 | 123 | 168 | 110 | 140 | 102 | 151 | 125 | 145 | 115 | 163 | 1,499 | 1,780 | 1,436 | 1,843 | 3,279 |
| 1880 to 1884 " .......... | 131 | 163 | 134 | 140 | 154 | 160 | 153 | 196 | 145 | 183 | 115 | 164 | 124 | 152 | 123 | 208 | 117 | 157 | 142 | 154 | 128 | 154 | 131 | 162 | 1,399 | 2,191 | 1,597 | 1,993 | 3,590 |
| Total sexes by months.......... | 588 | 657 | 514 | 631 | 616 | 707 | 586 | 716 | 565 | 708 | 515 | 641 | 503 | 639 | 553 | 764 | 524 | 708 | 537 | 701 | 562 | 667 | 590 | 719 | ....... | ....... | 6,653 | 8,258 | 14,911 |
| Totals each month .............. | 1,245 | | 1,145 | | 1,323 | | 1,302 | | 1,273 | | 1,156 | | 1,142 | | 1,317 | | 1,232 | | 1,238 | | 1,229 | | 1,309 | | ....... | ....... | ....... | ....... | 14,911 |
| Totals parentage *20 years...... | ........ | | | | | | ........ | | | | | | ........ | | | | | | ........ | | | | | | 5,980 | 6,387 | | | |
| | 1st quarterly period, | | | | | | 2d quarterly period, | | | | | | 3d quarterly period, | | | | | | 4th quarterly period, | | | | | | | | | | |
| Totals of quarterly periods..... | .........3,713........ | | | | | | .........3,731........ | | | | | | .........3,691........ | | | | | | .........3,776........ | | | | | | ....... | ....... | ....... | ....... | 14,911 |
| | 1st half of the year, | | | | | | | | | | | | 2d half of the year, | | | | | | | | | | | | | | | | |
| Totals of each six months...... | ...................7,444.................. | | | | | | | | | | | | ...................7,467.................. | | | | | | | | | | | | ....... | ....... | ....... | ....... | 14,911 |

* Parentage not reported previous to 1865.

## TABLE II.

*Showing the mortality from Pulmonary Consumption in Rhode Island, at different ages, and of each sex, in periods of five years each, from 1860 to 1884, inclusive, with percentages of the same at different periods of life.*

| PULMONARY CONSUMPTION. | Under 1. | | 1 and under 2. | | 2 to 5. | | 5 to 10. | | 10 to 15. | | 15 to 20. | | 20 to 30. | | 30 to 40. | | 40 to 50. | | 50 to 60. | | 60 to 70 | | 70 to 80. | | 80 to 90. | | Age not stated. | | SEX. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | Total. |
| YEARS. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1860 to 1864, incl. | ... | ... | ... | ... | *88 | *80 | 10 | 17 | 16 | 28 | 101 | 136 | 270 | 377 | 223 | 295 | 175 | 180 | 127 | 100 | 88 | 105 | 44 | 52 | 14 | 11 | 3 | 4 | 1,159 | 1,385 | 2,544 |
| 1865 to 1869, " | 33 | 44 | 20 | 18 | 16 | 20 | 14 | 14 | 12 | 26 | 81 | 163 | 356 | 406 | 234 | 252 | 174 | 184 | 131 | 125 | 106 | 122 | 53 | 53 | 10 | 14 | 4 | 5 | 1,244 | 1,446 | 2,690 |
| 1870 to 1874, " | 23 | 29 | 10 | 20 | 13 | 13 | 6 | 8 | 11 | 30 | 93 | 167 | 312 | 492 | 245 | 297 | 168 | 207 | 145 | 134 | 110 | 108 | 58 | 69 | 10 | 13 | 4 | 4 | 1,217 | 1,591 | 2,808 |
| 1875 to 1879, " | 34 | 31 | 12 | 19 | 15 | 9 | 13 | 18 | 15 | 46 | 106 | 242 | 428 | 563 | 278 | 347 | 198 | 214 | 144 | 151 | 117 | 119 | 62 | 69 | 10 | 14 | 4 | 1 | 1,436 | 1,843 | 3,279 |
| 1880 to 1884, " | 35 | 40 | 22 | 18 | 14 | 13 | 9 | 13 | 18 | 45 | 111 | 215 | 528 | 658 | 306 | 422 | 221 | 223 | 146 | 147 | 118 | 105 | 49 | 64 | 14 | 22 | 6 | 8 | 1,597 | 1.993 | 3.590 |
| Totals of each sex by ages.. | 125 | 144 | 73 | 75 | 146 | 135 | 52 | 70 | 72 | 175 | 492 | 923 | 1,894 | 2,496 | 1,286 | 1,613 | 936 | 1,008 | 693 | 657 | 539 | 559 | 266 | 307 | 58 | 74 | 21 | 22 | 6,653 | 8,258 | 14,911 |
| Totals of sexes by ages.. .... | 269 | | 148 | | 281 | | 122 | | 247 | | 1,415 | | 4,390 | | 2,899 | | 1,944 | | 1,350 | | 1,098 | | 573 | | 132 | | 43 | | ...... | ...... | 14,911 |
| Total under five years......... | ...... | | 698 | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | ...... | ...... |
| Per cent. different ages...... | 1.80 | | 0.99 | | 1.88 | | 0.82 | | 1.66 | | 9.49 | | 29.44 | | 19.44 | | 13.05 | | 9.06 | | 7.36 | | 3.84 | | .89 | | -28 | | ...... | ...... | 100.00 |
| Per cent. under five years .... | ...... | | 4.67 | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | ...... | ...... |
| Per cent. 5 to 20. | ...... | | ...... | | ...... | | ...... | | 11.97 | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | ...... | ...... |
| Per cent. 20 to 40 | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | | | 48.88 | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | ...... | ...... |
| Per cent. 40 to 60 | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | | | 22.11 | | ...... | | ...... | | ...... | | ...... | | ...... | ...... | ...... |
| Per cent. 60 to 80 | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | ...... | | | | 11.20 | | ...... | | ...... | | ...... | ...... | ...... |

*Including all under five years of age. Ages under five not specified in tabular reports previous to 1865.

SEX. — Of the deaths from consumption during the period of twenty-five years, 6,653 were males and 8,258 were females, an excess of 1,605 females; or a proportion of 124 female decedents to every 100 male decedents.

The ratio of the sexes by population is about 106 females to every 100 males.

An excess of female decedents from consumption, is the rule during every month of every year with scarcely any exceptions. The same rule holds true in relation to the ages of the decedents, that is, more females in every period of life than males, with the exception occasionally of a larger number of males between the ages of 3 and 5 and between 50 and 60.

SEASON.—It is popularly supposed that more deaths occur from consumption during the winter months than during any other months of the year. It will be seen, however, by reference to Table 1 that March has the unenviable distinction of furnishing the largest mortality from that disease.

The months in which the mortality from consumption occurred during the period of twenty-five years in the order of from the largest to the smallest, are as follows: March, 1,323; August, 1,317; December, 1,309; April, 1,302; May, 1,273; January, 1,245; October, 1,238; September, 1,232; November, 1,229; June, 1,156; February, 1,145; July, 1,142. Pulmonary consumption as a disease is more evenly distributed through all months of the year than any other, and deaths therefrom maintain a corresponding uniformity. There is usually a somewhat increased mortality from the debilitating effects of close confinement during the winter months, and from the enervating effects of continued heat at the close of the summer months.

The different quarters of the year, in the aggregates of twenty-five years, show a mortality in numbers as follows: 1st quarter, 3,713; 2nd quarter, 3,731; 3rd quarter, 3,691; 4th quarter, 3,776.

AGE.—While no period of life is exempt from the ravages of consumption, there is a very strongly marked difference in the mortality at different ages. During the twenty-five years comprised in the tables on previous pages, the average proportions in every 1,000 deaths from consumption were as follows:

| | In every 1,000. | | In every 1,000. |
|---|---|---|---|
| Under 1 year of age | 18.0 | 30 to 40 years of age | 194.4 |
| 1 and under 2 years of age | 9.9 | 40 to 50 " " | 130.5 |
| 2 and under 5 " " | 18.8 | 50 to 60 " " | 90.6 |
| 5 to 10 " " | 8.2 | 60 to 70 " " | 73.6 |
| 10 to 15 " " | 16.6 | 70 to 80 " " | 38.4 |
| 15 to 20 " " | 94.9 | 80 to 90 " " | 8.9 |
| 20 to 30 " " | 294.4 | Age not stated | 2.8 |

Longer periods of life may be taken as follows:

| | In every 1,000. | | In every 1,000. |
|---|---|---|---|
| Under 20 years of age | 166.4 | 60 to 80 years of age | 112.0 |
| 20 to 40 " " | 488.8 | 80 to 90 " " | 8.9 |
| 40 to 60 " " | 221.1 | Not stated | 2.8 |

It will be seen that nearly one-half of the mortality from consumption occurs in the period of life between 20 and 40 years of age.

### RATIO TO POPULATION OF SAME AGE.

| | Per cent. of deaths from Consumption. | Per cent. of Population. |
|---|---|---|
| Under 5 years | 4.67 | 10.74 |
| 5 to 20 " | 11.97 | 29.07 |
| 20 to 40 " | 48.88 | 34.55 |
| 40 to 60 " | 22.11 | 18.30 |
| 60 to 80 " | 11.20 | 6.71 |
| 80 to 90 " | .89 | .57 |

Under 20 years of age, the proportion of deaths from consumption, to whole number of deaths from consumption, is less than the proportion of that class of population by age to the whole population, by about 60 per cent. Above 20 years of age the tide turns. From 20 to 40 years of age the proportion of decedents from consumption is larger than the proportion of that class to the whole population, by about 40 per cent. From 40 to 60 years it is larger by about 20 per cent., and above 60 years by nearly 70 per cent.

It does not seem by the results of registration, and by the comparison of the same with the population of the same age, that advanced life acquires any immunity from the development of pulmonary consumption, but that the lessened number of decedents, is due to the diminished number of living individuals of that advanced age. And more than that, statistics seem to show on the other hand, that beyond the sixtieth year of life, there is an increased disposition to the development of pulmonary diseases.

### PROPORTION OF DEATHS FROM CONSUMPTION TO TOTAL DEATHS FROM ALL SPECIFIED CAUSES.

| | Five years. | Five years. | Five years. | Five years. | Five years. |
|---|---|---|---|---|---|
| Annual average | 1860—1864. | 1865—1869. | 1870—1874. | 1875—1879. | 1880—1884. |
| Percentage | 18.70 | 18.74 | 15.56 | 15.83 | 14.80 |
| Per 1,000 | 187.0 | 187.4 | 155.6 | 158.3 | 148.0 |

The preceding summary will show the average annual percentage of deaths from consumption in proportion to all other stated causes in each period of five years from 1860 to 1884 inclusive.

The percentage is based upon the returns of deaths giving the cause of death. The number of deaths returned with cause unknown, varies from year to year considerably, but with a gradually diminishing proportion. During the year 1884, the number was 42. It was the smallest ever returned in any single year. Some slight allowance may be made therefore in the percentages of the two or three earlier periods of five years.

### CONSUMPTION. PROPORTION OF DEATHS TO POPULATION.

In ascertaining the proportion of deaths from consumption to the living population in each of the five year periods, the basis of computation is obtained by adding to the population taken by the State or National censuses at the beginning of each five year period, one-half of the increase of population during that period, ascertained by the census taken at the beginning of the succeeding five year period. An average is thereby found, which, if not absolutely and mathematically exact, is very close and sufficiently approximate thereto.

### DECEDENTS FROM CONSUMPTION, 1860 TO 1884, INCLUSIVE.

| | Five years, 1860-1864, incl. Of population. | Five years, 1865-1869, incl. Of population. | Five years, 1870-1874, incl. Of population. | Five years, 1875-1879, incl. Of population. | Five years, 1880-1884, incl. Of population. |
|---|---|---|---|---|---|
| Annual average, one in every | 353 | 374 | 423 | 424 | 404 |
| “ “ in every 10,000, | 28.3 | 26.7 | 23.6 | 23.5 | 24.7 |
| Aggregate in every 10,000 | 141.5 | 133.5 | 118.0 | 117.5 | 123.5 |

The results of investigation show, that consumption as a cause of death has diminished in frequency since 1860, commencing with an average proportion of 28.3 annually in every 10,000 of the population during the five years from 1860 to 1865, and closing with an average annual proportion of 24.7 during the five year period ending Dec. 31, 1884. It will be seen, however, that the diminution has not been by regular gradation, the third and fourth five year periods showing an annual average proportion to population somewhat smaller than the last period.

### CONSUMPTION. PROPORTION OF DEATHS TO POPULATION BY PARENTAGE.

In the previous consideration of the proportion of deaths from consumption to population, regard was had to the *total* population, comprising all of the two distinctive classes, that is, American and Foreign. It is now proposed to consider the proportions of the two classes (American and Foreign) separately, that is, the number of deaths from consumption in each class, in periods of five years each, as before.

There can be, however, but four periods of five years each in such consideration, as the tabulated reports of the parentage of decedents, were not made previous to 1865.

Decedents of mixed parentage, i. e., of American father and Foreign mother, and vice versa, are classed with the parentage of the fathers.

It is necessary in this connection to make use of the census enumerations taken during the first year of each five year period, as the enumerations of the census of 1885 in relation to the population by parentage, have not at the time of this writing been completed.

The circumstance, however, is consequential only so far as the increase of population in the one class, may have been greater than in the other. Whatever difference there may have been would doubtless be in favor of the class of foreign parentage. That the reader may form some estimate of what such small difference might be (the proportions being each for its own class) the populations of the two classes at the commencement of each five year period are given:

| | 1865. | 1870. | 1875. | 1880. |
|---|---|---|---|---|
| American parentage | 117,316 | 124,591 | 134,722 | 139,117 |
| Foreign parentage | 67,649 | 92,762 | 123,517 | 137,414 |

The whole number of decedents from consumption in each class during each period of five years, were as follows:

| | 1865—1869.<br>No. deaths from Consumption. | 1870—1874.<br>No. deaths from Consumption. | 1875—1879.<br>No. deaths from Consumption. | 1880—1884.<br>No. deaths from Consumption. |
|---|---|---|---|---|
| American parentage | 1,157 | 1,507 | 1,499 | 1,399 |
| Foreign parentage | 1,114 | 1,301 | 1,780 | 2,191 |

The following summary will show the *proportional* mortality from consumption in each class in each period of five years:

| | Five years, 1865—1869. | Five years, 1870—1874. | Five years, 1875—1879. | Five years, 1880--1884. |
|---|---|---|---|---|
| | Deaths from Consumption. | | | |
| | Annual average. | Annual average. | Annual average. | Annual average. |
| Of population, | One in every | One in every | One in every | One in every |
| American parentage | 372 | 413 | 449 | 497 |
| Foreign parentage | 303 | 356 | 347 | 313 |

The reader will scarcely fail to observe the regularity with which the proportions of deaths from consumption in the population of American parentage have diminished during the twenty years. At the same time, it will be seen that the mortality from the same disease in the population of foreign parentage, holds nearly the same proportion to the population of that class in the last five years as in the first.

Another method of presenting the varying proportions of mortality from consumption during twenty years in the two classes of population, may have some advantages in that the results may be more immediately obvious, as follows:

### AVERAGE ANNUAL NUMBER OF DEATHS IN EACH PERIOD.

| | Five years, 1865—1869. | Five years, 1870—1874. | Five years, 1875—1879. | Five years, 1880—1884. |
|---|---|---|---|---|
| Of population, | In every 10,000. | In every 10,000. | In every 10,000. | In every 10,000. |
| American parentage | 26.8 | 24.2 | 22.3 | 20.0 |
| Foreign parentage | 33.0 | 28.1 | 26.0 | 31.9 |

Again will be seen the diminution by regular gradation, of the percentage of decedents from consumption in the population of

American parentage, and the approximate maintainance in the last five year period, of the average proportion of the first five year period in the population of foreign parentage. The more favorable occurrence of diminished proportion during the second and third periods, is shown to have taken a more unfavorable turn in the fourth.

It should be understood that the term "foreign parentage" is meant to include not only all persons of foreign birth, but also all persons born in the United States whose parents were foreign born. And therein is the limit of foreign parentage as the term is used in this paper.

All persons who were born in the United States of parents whose birth also occurred in the United States are reckoned as of American parentage, although their grandparents may have been foreign born and their parents reckoned as of foreign parentage.

The following table will show the number of deaths from Consumption, of persons of twenty years of age and over, who were engaged in various occupations, with the number of decedents in each occupation, and the whole number of persons engaged in the same occupations by the census of 1875.

## TABLE III.

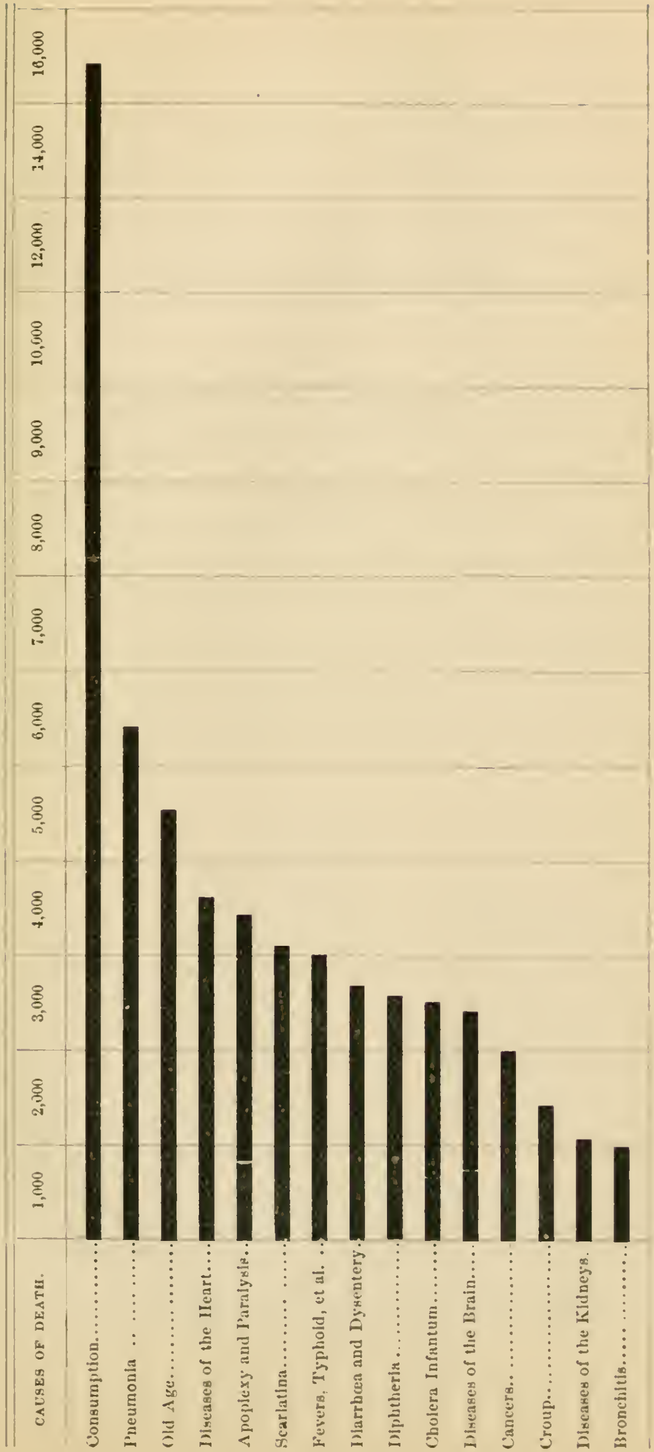
*Exhibiting the number of decedents from Consumption in different occupations, during twenty-five years, from 1860 to 1884, inclusive; and also the number of persons engaged in the same occupations by the Census of 1875, ages under twenty excluded.*

| OCCUPATIONS. | No. of decedents from Consumption. | No. persons in each Occupation, 1875. |
|---|---|---|
| I. AGRICULTURE. | | |
| Farmers | 461 | 11,075 |
| Florists | 6 | 65 |
| Gardeners | 19 | 560 |
| II. PROFESSIONAL AND PERSONAL SERVICES. | | |
| Actors | 3 | 43 |
| Artists | 7 | 82 |
| Architects | 1 | 60 |
| Barbers | 50 | 368 |
| Canvasser | 1 | 33 |
| Civil Engineers | 4 | 131 |
| Clergymen | 14 | 316 |
| Clerks and Salesmen | 193 | 3,780 |
| Coachmen | 30 | 396 |
| Collectors | 1 | 42 |
| Constables | 2 | ...... |
| Cooks | 5 | 321 |
| Dentists | 1 | 71 |
| Hostlers | 13 | 489 |
| Hotel-keepers | 11 | 136 |
| Janitors | 5 | 63 |
| Journalists | 1 | 44 |
| Laborers | 1,143 | 7,928 |
| Lawyers | 5 | 186 |
| Musicians | 4 | 122 |
| Music-teachers | 2 | 70 |
| Nurses | 1 | 42 |
| Photographers | 3 | 84 |
| Physicians | 27 | 367 |
| Policemen | 6 | ...... |
| Saloon-keepers | 28 | 360 |
| Stable-keepers | 9 | 179 |
| Students | 13 | 517 |
| Teachers | 25 | 232 |
| Undertakers | 2 | 61 |
| Waiters | 24 | 474 |
| Watchmen | 9 | 323 |
| III. TRADE AND TRANSPORTATION. | | |
| Agents, Insurance | 5 | 118 |
| " Local | 9 | 197 |
| " Travelling | 2 | 106 |
| Apothecaries | 6 | 199 |
| Bankers and Brokers | 7 | 114 |
| Book-keepers | 60 | 840 |
| Brakemen | 6 | 119 |
| Butchers | 26 | 586 |
| Car Drivers | 1 | 68 |
| Cashiers, (Bank, &c.,) | 2 | 106 |
| Collectors | 1 | 42 |
| Confectioners | 2 | 78 |
| Conductors, Car | 3 | 117 |
| Expressmen | 5 | 232 |
| Fishermen and Oystermen | 22 | 789 |
| Grocers | 44 | 1,018 |
| Hackmen | 5 | 165 |
| Liquor Dealers | 16 | 124 |
| Mariners | 79 | 700 |
| Marketmen | 2 | 378 |
| Merchants | 101 | 1,710 |
| Milkmen | 1 | 107 |
| Peddlers | 18 | 401 |
| Pilots | 2 | 41 |
| Porters | 5 | 143 |
| Railroad Station Agents | 3 | 66 |
| Sea Captains | 2 | 48 |
| Stevedores | 1 | 47 |
| Teamsters | 49 | 2,072 |
| Telegraphers | 2 | 85 |
| Tobacconists | 2 | 52 |
| Traders and Dealers | 43 | 1,618 |

## TABLE III.—Continued.

| OCCUPATIONS. | No. of decedents from Consumption. | No. persons in each Occupation, 1875. | OCCUPATIONS. | No. of decedents from Consumption. | No. persons in each Occupation, 1875. |
|---|---|---|---|---|---|
| IV. MANUFACTURES, MECHANICAL AND MINING INDUSTRIES. | | | Overseers and Superintendents.. | 16 | 228 |
| | | | Painters | 100 | 1,658 |
| | | | Pattern-makers | 4 | 145 |
| Bakers | 15 | 317 | Paper Hangers | 2 | 45 |
| Belt-makers | 1 | 68 | Piano-makers | 1 | 8 |
| Blacksmiths | 91 | 1,263 | Paver, Stone | 1 | 40 |
| Bleachers | 10 | 370 | Plumbers | 15 | 385 |
| Block-maker | 1 | 24 | Pork Packers | 2 | 36 |
| Boat-builders | 2 | 37 | Printers | 35 | 392 |
| Boiler-makers | 14 | 148 | Riggers | 1 | 18 |
| Book-binders | 5 | 75 | Roll Coverers | 2 | 64 |
| Boot and Shoe-makers | 87 | 690 | Rope-makers | 2 | 31 |
| Brewers | 2 | 32 | Rubber-workers | 14 | 680 |
| Brush-makers | 2 | 36 | Sail-makers | 1 | 49 |
| Cabinet-makers | 19 | 324 | Ship Carpenters | 5 | 89 |
| Calico-printers | 2 | 50 | Silversmiths | 20 | 310 |
| Carpenters | 122 | 4,771 | Stair Builders | 3 | 48 |
| Carriage-makers | 9 | 348 | Stone Cutters | 46 | 733 |
| Cigar-makers | 23 | 299 | Stucco-workers | 1 | 42 |
| Confectioners | 3 | 70 | Tailors | 58 | 658 |
| Coopers | 11 | 120 | Tinsmiths | 17 | 356 |
| Die Sinkers | 2 | 51 | Tool-makers | 3 | 70 |
| Dyers | 10 | 370 | Upholsterers | 11 | 136 |
| Engineers and Firemen | 22 | 835 | Watch-makers | 7 | 115 |
| Engravers | 23 | 266 | Wheelwrights | 8 | 142 |
| File Cutters | 14 | 305 | Wire-workers | 1 | 29 |
| Gas Fitters | 10 | 152 | V. FEMALES. | | |
| Gunsmiths | 1 | 430 | | | |
| Harness-makers | 21 | 214 | Box Makers, Paper | 2 | 142 |
| Hatters | 4 | 37 | Cigar Makers | 2 | 102 |
| Jewelers | 186 | 2,881 | Dressmakers and Seamstresses | 71 | 2,557 |
| Machinists | 208 | 2,380 | | | |
| Manufacturers | 44 | 677 | Milliners | 12 | 640 |
| Masons | 73 | 1,839 | Nurses | 3 | 302 |
| Mechanics | 88 | 1,444 | Operatives | 204 | 14,900 |
| Millers | 5 | 43 | Servants | 56 | 5,906 |
| Millwrights | 3 | 18 | Sisters of Mercy | 11 | ..... |
| Moulders | 43 | 980 | Tailoresses | 28 | 880 |
| Operatives | 370 | 16,358 | Teachers | 39 | 1,153 |

*Diagram III. Exhibiting the comparative mortality by absolute number of decedents from fifteen most important causes of death, in Rhode Island, during twenty-five years from 1860 to 1884 inclusive.*



# CATTLE COMMISSION.

It is with great satisfaction the Secretary can report the continued comparatively healthy condition of the domestic animals of the State through the year 1885.

Hog cholera prevailed in several of the towns in separate localities and to a more limited extent than during the previous year. It would seem from the circummstances which almost invariably are connected with the occurrence of hog cholera in this State, that even hogs may suffer in health from superabundance of putrefying filth, in crowded quarters and especially when associated in large numbers.

A few cases of "pink eye" among horses in one locality, and appearing simultaneously, seemed the harbingers of a local, if not a general epidemic. They proved to be sporadic cases only, and were not severe in character.

## GLANDERS.

It will hardly be possible to report in any year, the freedom of the State from cases of glanders and farcy. So many horses are brought into the State from infected localities, and such introduction must, from the business necessities of the State, be continued, that the utter extirpation of the disease cannot be expected, and a relaxation of vigilance would allow a rapid increase in the numbers affected.

In Illinois, Missouri, Kansas, Michigan and Wyoming Territory, the State Boards of Health, State Veterinarians or other authorities, are exercising active efforts and with vigorous measures in the endeavor to suppress the incurable disease prevailing so extensively in various sections of their respective jurisdictions.

During the year 1885, forty-four horses were reported as suspected of having glanders and farcy. There were one hundred and seven examinations, inspections or visits to places of keeping during the year. Some of the suspected cases could not be determined, whether nasal catarrh, ozœna, influenza or some other glandular disease, under from three to six or eight weeks, during which examinations are usually made about once a week.

Of the forty-four horses suspected, or which have been reported to this office as having glanders, sixteen were killed for confirmed disease.

Of these sixteen, there were seven found in Providence city, two in Pawtucket, two in Newport city, and one each in Pawtuxet, East Providence, Cumberland, Warwick and Lincoln.

## CONTAGIOUS PLEURA-PNEUMONIA.

In a previous report of the Secretary it was observed, that this disease which had for many years been confined to a strip of the United States, beginning in and around Brooklyn, N. Y., and in the vicinity of New York city, and including New Jersey, eastern Pennsylvania, Maryland and Virginia, had, during the latter part of the year 1883 and in 1884, been transferred to Ohio, Illinois and other States in the west.

This fact, which was for many months stoutly denied by the cattle breeders in that section of the country, and by the entire body of live stock traders, is now so well established as to be undeniable, and as so many more cattle are brought from the western States to the New England States than from the nearer sections in the vicinity of New York, the danger of the transference of the disease to Rhode Island is thereby increased. But with timely notice given the State Board of Health it can hardly be possible that the disease if introduced can obtain any large prevalence in this State.

In the report for 1883 there was presented the draft of "A Bill for the establishment of a Bureau of Animal Industry for the suppression and extirpation of pleuro-pneumonia and other contagious diseases in domestic animals." The Bill has since passed both Houses of Congress and become a national law.

The fact of the presence of pleuro-pneumonia in Kentucky and Illinois at that time has not only been recognized, but a farther extension to Missouri and Kansas. It is not at this time known that the disease has any extended prevalence in either of the western States, but that there are infected localities which should be quarantined.

A most determined fight against the invasion and extension of contagious diseases among cattle and horses, has been waged in most of the States upon and west of the Mississippi river during 1885. Cattle growers and cattle traders have realized the situation and have organized in various ways to resist the common enemy. The old live stock associations and commissions have vied with the newer organizations in their efforts for protection.

Through their influence State and Territorial laws have been enacted, proclamations, rules and regulations issued, and many voluntary and private measures adopted, to secure immunity from the dreaded animal scourges.

There is a strong feeling among the stock raisers at the west, that the General Government at Washington is not doing what it ought in the way of providing for the restriction and extermination of the animal plagues which menace their extensive investments.

The following report of a veterinary committee to the Cattle Growers Association, will give the prevailing sentiment of the cattle raisers of the entire cattle producing States and Territories:

*To the Convention of the National Cattle Growers' Association:*

MR. PRESIDENT AND GENTLEMEN:—We have the honor to submit the following report, adopted by the veterinarians and sanitary boards from the different States and Territories, at a convention held by them in Chicago, November 16 and 17, 1885, to wit:

There exists throughout the United States a large number of contagious diseases affecting our domestic animals, which are most harmful to the agricultural and stock raising industry, which entails great losses on the producers of the domestic animals, and some of these diseases can be communicated to man, causing severe illness and death. These contagious diseases are communicated from the diseased to healthy animals, by contact of the animals or by placing the sound animals in localities previously occupied by diseased ones. Most of these contagious diseases have been imported into the United States from foreign countries, and are to a great extent still confined to limited localities, the majority of them in the Eastern States. Other of these contagious diseases are indigenous to the American continent, but are confined as yet to limited localities. All of these contagious diseases are spreading with variable rapidity, and are surely increasing. The violence and contagiousness of these diseases are variable, some being excessively dangerous, some only moderately so, some affecting several species of animals, some confined to a single species. Of these contagious diseases, pleuro-pneumonia in cattle, hog cholera, Texas fever, tuberculosis, and glanders in horses, are prevalent throughout a large portion of the United States, and are on the increase, destroying thousands of animals each year, and are injuring our commerce, both inter-State and foreign, to the extent of millions annually. These contagious diseases are propagated only by submitting sound animals to contact with diseased ones, or with objects with which the latter have been in contact. The majority of these diseases cannot be cured when they have attacked an animal, but the occurrence of the majority of them can be prevented by proper precautions, which consist in preventing the communication of the sound animals, with objects bearing the contagion. In view of the immense wealth of the United States, especially in the West, centered in the industry of raising and exporting animals; in view of the increase of contagious diseases, which is surely bringing a scourge on this country, and in view of the present inharmonious and inadequate legislation in regard to these diseases, it behooves us to urge the necessity for immediate, prompt and forcible action to suppress the existing causes of disease, and to prevent their future spread. State laws are excellent, but insufficient, as they are unable to control the approach of disease from neighboring States which are less wise; neither can they prevent animals from a State which has maintained their soundness by constant care, from exposure to infection while passing through other States to distant markets, nor can they prevent the passage of diseased animals across the State to other States and Territories. It is necessary that we should have uniform and general laws, rigidly enforced, which will protect all alike. This can only be done through the general government of the United States, and while costly, will prove the most economical in the end. While we desire laws of sanitary police, which will protect us against all the contagious diseases of our domestic animals, we urgently appeal to the general and State governments for the appointment of a sufficient number of competent agents with the funds necessary for the immediate suppression of contagious pleuro-pneumonia in cattle, glanders in horses, hog cholera, and the restriction of Texas fever to the localities where it is indigenous.

Until we have other means at our disposal for the prevention of these diseases, we have but two lines of action to adopt—the absolute extermination of all animals which are affected with the disease, or have been so exposed that they may convey it to others at a longer or shorter period; the absolute interdiction of all commerce in the domestic animals from localities which contain affected animals, or from which the source of contagion can be conveyed. The details of procedure for these cases will be the result of mature deliberation, requiring more time than we have at our disposal here, but the facts are indisputable. Other countries to their cost have procrastinated as we are now doing, and have paid for it in immense losses, and the ruin of their cattle trade.

Respectfully submitted,

J. D. Hopkins, D. V. S., Wyoming Veterinarian.
Prof. C. B. Michener, D. V. S., Am. Vet. College, N. Y.
L. McLean, M. R. C. V. S., Brooklyn, N. Y.
D. E. Salmon, Chief Bureau of Animal Industry.
J. L. Brush, Pres. Sanitary Board of Colorado.
Prof. R. S. Huidekoper, Pres. (Member Ex. Officio.)

Senator Beck, of Kentucky, has introduced in the United States Senate a bill in amendment of the Act creating a Bureau of Animal Industry, which voices the sentiments expressed in the foregoing report and is designed to furnish more complete protection from contagious and infectious diseases among domestic animals.

## VETERINARY MEDICINE.

The future of veterinary medicine and surgery in the United States and Canadas is very promising. Until within recent years it was not thought at all necessary that persons who designed to give more or less attention to the treatment of diseased animals should have a preliminary education constituting good scholarship in the English language, and a technical education and training in a veterinary school of medicine. Now it is rapidly becoming the sentiment of the average owner of domestic animals that, whoever is the veterinary physician they are disposed to employ if not qualified by long years of experience, he must be a graduate of a well equipped veterinary college.

Several such colleges or schools of medicine are now established on a good basis in the United States and in the Canadian provinces. Harvard University, the University of the State of New York, McGill University, Montreal, Can., and other State Universities, Agricultural Colleges and leading institutions of learning, have schools of veterinary medicine attached.

State Veterinary Societies, and city and county Veterinary Medical Associations have been actively springing into organization and existence in a large number of the States. In the meetings of which the principles of veterinary medicine and the results of experience are ably and warmly discussed, and in which also the spirit of progress and appreciation of the dignity of the chosen calling is abundantly manifest.

The United States Veterinary Medical Association has been in existence several years; it is composed of delegates from the several States. The meetings of this Association are sometimes very interesting and instructive. As the years go by these meetings will all be instructive and the published proceedings be of great value.

# THE LAWS OF RHODE ISLAND,

IN RELATION

# TO PUBLIC HEALTH,

AND

# SUGGESTIONS TO HEALTH OFFICERS.

# PUBLIC STATUTES.

## CHAPTER 38.

### OF TOWN COUNCILS AS BOARDS OF HEALTH.

SEC. 13. The several town councils and boards of aldermen shall be *ex-officio* boards of health in their respective towns, and may make such rules and regulations, not repugnant to law, as they shall judge proper, for the preservation of the health of the inhabitants thereof, the prevention and abatement of nuisances, the promotion of cleanliness, the removal of the causes and the prevention of the introduction and spread of any contagious or infectious disease therein: either by removing the inhabitants of their respective towns, or forbidding or regulating ingress or egress of persons to and from the same, or any parts thereof, or otherwise; and, in case of seaport towns, by making rules and regulations respecting quarantine. The town council of any town, or the city council of any city, may establish such regulations as they may deem proper in reference to cattle or other animals coming from without this state by railroad, for the health and safety of such cattle and other animals, for preventing the obstruction of the public highways by them, for the safety of the people who may have occasion to use such highways, and with reference to the slaughtering, or selling such cattle or other animals, or the flesh thereof, for human food, within the limits of their respective town or city: *Provided*, that the city council of any city may appoint a board of health for such city which shall have all or any part of the powers and duties of the board of aldermen as a board of health, as the city council may determine.

SEC. 14. They shall affix penalties for the breach of such rules and regulations by them made in their said capacity, not exceeding three hundred dollars fine, or six months imprisonment, for any one offence, unless otherwise provided by law, said fine to enure, one half thereof to the use of the complainant, and one half thereof to the use of the town.

## CHAPTER 79.

### OF NUISANCES AND OTHER CAUSES OF INJURY TO PUBLIC HEALTH.

SECTION 1. If nuisances or other causes injurious to the health of the inhabitants of any town shall not be removed by the person permitting or erecting the same, as required by any order or regulation of the town council of the town, the town council shall adopt such measures as they shall deem effectual for the removal thereof, at the proper charge and expense of the person erecting or permitting the same.

Sec. 2. The sheriff, his deputies and the town sergeants and constables of the several towns shall execute all such precepts and orders as shall be to them directed by said town councils for carrying into execution the provisions of the preceding section.

Sec. 3. The town councils of the several towns may designate and establish the place or places where the business of slaughtering cattle and other animals shall be carried on, and thereby vest in the occupant or owner thereof a right to use and occupy the same, for the purposes aforesaid, until such right be withdrawn or suspended in the manner hereinafter provided or until such use and occupancy be abated as a public nuisance.

Sec. 4. Whenever, in the judgment of the town council of any town, the convenience or health of said town requires the withdrawal or suspension of the right of slaughtering provided for in the preceding section, the said town council may withdraw or suspend said right, first giving to the owner or occupant of such place or places two months notice, in writing, of their intention to withdraw or suspend the same.

Sec. 5. Every person who shall, after notice given as aforesaid, commence or continue to carry on the business of slaughtering cattle or other animals in such place or places, shall be fined fifty dollars for every day during which he shall continue to carry on the same.

Sec. 6. In case of the suspension or withdrawal by any town council of the said right to slaughter cattle or other animals, the said town shall be liable to the person to whom such right has been granted for any loss or damage resulting from such suspension or withdrawal to be recovered by action in a special court of common pleas, in the manner provided by law for cases within the jurisdiction of said court.

Sec. 7. Whenever the town council of any town shall have designated and established therein a place in which the business of boiling bones, depositing filth, keeping swine, or slaughtering cattle or other animals may be carried on, as herein provided, every person who shall carry on such business in any other place shall be fined fifty dollars for each day on which he shall carry on the same.

Sec. 8. Nothing herein contained shall be so construed as to deprive any farmer, not engaged or concerned in the business of slaughtering cattle or other animals, from erecting or continuing to use any building on his premises for the purpose of slaughtering his own cattle or other animals from time to time as before accustomed to do.

Sec. 9. No swine shall be kept in any town, to be fed on swill, offal or other decaying substances, brought from any other town, except in such place therein as shall be designated by the town council thereof.

Sec. 10. Every person violating the provisions of the preceding section shall be liable to the penalty prescribed in section seven of this chapter.

Sec. 11. No person shall carry on the business of expressing oil from fish within any town, except in such place therein as shall be designated by the town council thereof.

SEC. 12. Every person violating the provisions of the preceding section shall be fined not less than one hundred dollars nor more than five hundred dollars.

SEC. 13. The town council of any town may prohibit burials in the compact or thickly populated parts of such town, and may make such by-laws and ordinances relating to burials and the use of grounds for burials in such town, as they may think necessary for preserving the health thereof, and may enforce such ordinances in the manner provided in sections one and two of this chapter.

SEC. 14. The provisions of sections three, four, five and six of this chapter shall extend to the place of any manufacture of, or of working in, any article or substance the manufacture of which *shall be deleterious to the health of the neighborhood: Provided*, that prior to any action of the town council under this section, public notice of the pendency of any petition therefor shall be given in such mode and for such time, as said council shall prescribe.

SEC. 15. The town councils of the several towns may make such rules and regulations as they shall deem necessary, to regulate and control the construction and location of all places for keeping swine, privy vaults, sinks, sink-drains, sink-spouts, cess-pools and the outlets thereof, and may provide for the summary removal or reconstruction of all such as shall be by them deemed prejudicial to the public health, and may make rules prescribing the location of stables, and the time and manner of removing manure therefrom, or from privy vaults or slaughter-houses, and for the driving of animals through the highways of their several towns; and every person violating any ordinance, rule or regulation made in pursuance of this section, shall be fined twenty dollars, to be recovered upon complaint and warrant before any justice court, to the use of the town wherein such violation shall occur.

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## CHAPTER 81.

## OF REGULATIONS FOR THE PREVENTION OF CONTAGIOUS AND INFECTIOUS DISEASES.

SECTION 1. Every commander of any vessel which shall come into any port or harbor of the state, and shall have any person on board sick of the *small-pox or any other contagious or infectious distemper*, or which has had any person sick of such distemper during the passage to such port or harbor, or shall come from any port or place usually infected with the small-pox, or where any other contagious or infectious distemper is prevalent, who shall bring such vessel to anchor in any of the ports or harbors of the state within the distance of one mile from any public ferry, pier or landing-place, or permit or suffer any person on board such vessel to be landed, or any person to come on board such vessel, without a license first had and obtained from the town council of the town where such vessel shall arrive, shall be fined four hundred dollars.

SEC. 2. Such commander, on his arrival in any of the waters of the state, shall forthwith hoist and keep his colors in the shrouds of such vessel, as a signal that he has come from some such infected place or has infection or contagion on board.

SEC. 3. If any person shall come on shore from on board such vessel, without license first had and obtained as aforesaid, the town council may send back such offender immediately on board such vessel, or confine him on shore in such convenient place as to them shall appear most effectual to prevent the spreading of any infection; and the person so offending shall satisfy and pay all charges that shall arise thereon, and shall also be fined forty dollars.

SEC. 4. The town council of the town where such vessel shall arrive shall send a physician or other suitable person, to examine into and make report to them of the true state of such vessel and the people on board, at the charge of the master or owner of such vessel; and they shall forthwith put on board such vessel some suitable person or persons to secure said vessel, and effectually prevent any communication therewith, at the like charge of the master or owner thereof.

SEC. 5. The town council of such town shall confine on board such vessel, or send to some hospital or other suitable place, all persons who came in said vessel, for a convenient time, until such of them as have, or are likely to have, the small-pox or other infectious or contagious distemper, are perfectly recovered and cleansed from said distemper, or have passed a suitable quarantine, and also all persons who have gone on board said vessel without license as aforesaid, at the charge and expense of such persons respectively.

SEC. 6. The town council of such town shall appoint suitable persons to take effectual care that all goods, wares and merchandise imported in such vessel, which they think may hold and communicate the infection or contagion, are landed in some suitable place to be appointed by such council and cleansed in the manner by them directed, before they are permitted to be brought into any house, shop or warehouse, other than that in which they are cleansed as aforesaid.

SEC. 7. Whenever such goods are sufficiently aired and cleansed, said persons shall give the owners or persons entitled to possession thereof a certificate to that effect; and the town council shall allow and order said goods, wares and merchandise, to be delivered to the owners thereof; and the charge and expense of airing, landing and cleansing such goods, wares and merchandise, shall be borne by the respective owners; and such charge shall be a lien on such goods, wares and merchandise.

SEC. 8. All goods that are judged by the town council not to be infected shall be delivered to the owners without delay and expense of airing and as soon as may be consistent with the safety of the town; and all goods, wares and merchandise imported into any town by land from any place infected with the small-pox or other contagious or infectious distemper, shall be aired and cleansed at the discretion of the town council of such town and at the expense of the owners thereof, as aforesaid, or destroyed if necessary.

SEC. 9. All goods imported in such vessel as aforesaid, that shall be clandestinely landed or brought into any house, shop or warehouse without a certificate and allowance as aforesaid, or that shall be imported by land as aforesaid and not cleansed or aired by order of the town council as aforesaid, shall be forfeited; one-third thereof to the use of the state and two-thirds thereof to the use of the person who shall sue for the same.

SEC. 10. The town councils of the respective towns shall fix, settle and adjust all wages and charges demanded by persons employed by them to secure such vessel, or to air and cleanse such goods, or to attend upon and nurse such persons as aforesaid.

SEC. 11. If any owner, freighter, mariner or passenger as aforesaid shall refuse to pay such wages and charges so settled, adjusted and fixed, then such town shall sue for and recover such wages and charges, and the court where such action is brought and maintained shall tax double costs for the plaintiff.

SEC. 12. The town council in any town may appoint proper persons at all ferries or places where to them it may seem necessary, to examine on oath all persons suspected of violating the provisions of the preceding section, and on reasonable cause of suspicion may bring such offenders before some magistrate, that they may be dealt with according to law.

SEC. 13. *Every householder or person shall immediately inform the town council* of the town wherein he dwells, *of any person* in the house or tenement occupied by him, who has been *taken sick of the small-pox, or any other contagious or infectious distemper*, or suspected to be so.

SEC. 14. *Every person violating any provision of the preceding section shall forfeit twenty dollars* to the use of the town.

SEC. 15. Whenever the town council shall be so notified, they shall make proper examination by some physician or other skilful person; and if it be the small-pox or other contagious or infectious distemper wherewith such person is sick, they shall immediately set a proper guard to prevent the spreading of the contagion or infection, and shall remove said person to such place in the town as they shall think the most proper to prevent the spreading of the infection or contagion, or continue the said guard as aforesaid, as to them shall seem necessary; and they shall also confine, in some proper place, all such persons as may be by them suspected of having the distemper, until they are recovered and cleansed from the said distemper or have performed a suitable quarantine.

SEC. 16. *Whenever the small-pox or other contagious or infectious distemper* shall break out in any house, and the infected persons be confined to such house, the town shall be at the expense of guarding the same, and the owner at the expense of cleansing the same, to be fixed by the town council, which charges of cleansing, upon refusal to pay the same, shall be recovered by the town.

SEC. 17. In case the small-pox or other contagious or infectious distemper shall break out in any house or family in any town, the town council thereof may remove any inhabitants of said town, visited with the small-pox or other contagious or infectious distemper, to the hospital in said town, or other convenient place, in order to prevent the spreading of the infection; or otherwise, at their discretion, place a guard around the dwelling-house of the infected person, as to them it shall seem necessary.

SEC. 18. So long as the town council of any town shall endeavor to prevent the spreading of the small-pox, any persons who shall visit any person suspected to have the small-pox, or shall go into the house where persons so suspected are confined, without a license first had from the town council of the town or of the attending physician, shall forfeit for every such offence twenty dollars; one-half thereof to the use of the town where such offence is committed, and one-half thereof to the use of the person who shall sue for the same; and such persons shall be liable to be confined until they are suitably aired and cleansed or have performed suitable quarantine, at the discretion of the town council to whom complaint of the same shall be made.

SEC. 19. *Every physician, householder or other person*, having knowledge of the existence of *small-pox* in any town, shall immediately give information thereof to the town clerk of the town in which the person is sick with the small-pox, and in cities shall give like information to the superintendent of health.

SEC. 20. *Whenever the town clerk of any town shall have knowledge* or shall have received information as provided in the preceding section, *of the existence of small-pox* in his town, *he shall forthwith give or cause notice thereof to be given* to the town council of such town, at the expense of the town, to be audited and allowed by the town council.

SEC. 21. Every physician, householder, town clerk or other person, violating any provision of the preceding two sections, shall be fined twenty dollars, or be imprisoned not exceeding ninety days, either or both in the discretion of the court.

SEC. 22. Whenever any person shall be found to be infected with the small-pox in any town, the town council of such town and the superintendent of health in any city shall, within twenty-four hours after receiving information thereof, cause a white flag with the words small-pox in black letters, not less than six inches in length, inscribed thereon, so suspended or fastened as to be easily read, to be placed at or near the front door or principal entrance of the building in which such infected person is, and to be kept so placed so long as there shall be any danger of infection from said building.

SEC. 23. Every person who shall deface or remove any such flag without the permission of such town council or superintendent of health shall be fined twenty dollars and be imprisoned not exceeding ninety days.

SEC. 24. Every person in any house where there is any one sick with the small-pox or other contagious or infectious disease, or who is in any small-pox hospital, who shall voluntarily leave the same without a permit from the town council or the physician employed by such town council, or from the superintendent of health in cities, shall be fined twenty dollars and be imprisoned not exceeding ninety days.

SEC. 25. Every person who shall be convicted of wilfully spreading the small-pox or other contagious or infectious distemper, within the state, shall be imprisoned for one year; and if any person shall die in consequence of the spreading of the small-pox or other contagious or infectious distemper as aforesaid, the person who shall be convicted of wilfully spreading the same as aforesaid shall be fined not exceeding five thousand dollars and be imprisoned not more than five years nor less than one year.

SEC. 26. Every physician, surgeon or other person lawfully required by any town council to do any duty relating to the prevention of the spreading of the small-pox, under any provision of this chapter, who shall refuse or neglect to do the same, shall be fined forty dollars.

SEC. 27. In case any person shall hereafter be sick of any malignant, pestilential or infectious disease in any town, so that his life would be endangered by his removal, or in case it shall appear that the disease be so spread that the atmosphere, in the judgment of the town council, has become so contaminated as to endanger the lives of those persons who reside in or go into the neighborhood of the sick, the town council of such town may cause all persons so sick within such neighborhood to be notified to remove therefrom within three days; and if after that time any person shall remain there, the said town council may cause him to be forthwith removed at his own expense: *Provided*, that the expense of the removal of the poor, or of such as are unable in the judgment of the town council to remove themselves, shall be paid out of the town treasury.

SEC. 28. The town councils in the several towns shall provide annually for the gratuitous vaccination of the inhabitants thereof.

SEC. 29. The town councils shall contract with and provide a suitable number of physicians to vaccinate as aforesaid; and order the town treasurers of the several towns respectively to pay them such compensation as may be previously agreed upon; and the said physicians shall give due and reasonable notice of the time and place of meeting for the purpose of vaccination.

SEC. 30. Such physicians, as soon after fulfilling said contract as may be convenient, shall deposit in the town clerk's office a book, in which shall be by them respectively recorded, in a fair and legible hand, the name and age of every person by them vaccinated as aforesaid, and also such other remarks and observations as they may deem useful.

SEC. 31. Such town clerks shall safely keep said books for the accommodation of such physicians and others, without any compensation, and deliver the same over to their successors; but they may charge lawful fees for searching the same or for any copies.

SEC. 32. The health officer of the city of Newport shall, under the direction of the board of aldermen of said city, have authority concurrent with the town councils of the several towns in the county of Newport bordering on the public waters of the state, in all matters arising under this chapter in relation to any vessel coming within Dutch Island harbor or within the waters of the East river below the bridges between Portsmouth and Tiverton.

## CHAPTER 82.

## OF QUARANTINE.

SECTION 1. Each seaport town, or the town council thereof, shall appoint a health officer for such town, who shall visit all vessels which shall be subject to examination or quarantine, and carry into execution all regulations established by the town council, and shall be at all times accountable to said town council, and shall receive for his services such compensation as said council may allow, to be paid by the owners, agents or commanders of such vessels as may be subjected to quarantine or examination.

SEC. 2. Such town council shall cause to be published in one or more newspapers published in the state, within or nearest the town wherein such rules and regulations shall be adopted, at the expense of the town, all rules and regulations made by them respecting quarantine.

SEC. 3. They shall prescribe from time to time the several ports, places or countries from which vessels arriving shall be subject to examination or quarantine.

SEC. 4. They shall designate the particular place in the harbor, bay or river, adjacent to such town, where all ships or vessels arriving, subject to examination or quarantine, shall come to anchor; and shall define the limits of such quarantine ground, and assign the time for which such ships or vessels shall be detained, and where and how unladen.

SEC. 5. They may appoint a sentinel, who shall be paid by the town and be stationed in some convenient place on shore, or in some boat or vessel properly situated, to hail all ships or vessels which may arrive in such river, bay or harbor; and if such sentinel shall find that any ship or vessel is subject to quarantine, he shall direct the commander thereof to come to anchor within the limits of such quarantine ground, and there remain until visited by the health officer, and to place a signal in the shrouds of said vessel in such manner as to be seen at a proper distance.

SEC. 6. Every commander of a ship or vessel who shall, upon being hailed and directed by such sentinel, refuse or neglect to bring his ship or vessel to anchor within the limits as above described, shall be fined not exceeding five hundred dollars nor less than twenty dollars, to the use of the town.

SEC. 7. The town council may order such ship or vessel to be anchored on the quarantine ground, at the expense of the owners, master or commanding officer thereof, there to remain until legally discharged therefrom.

SEC. 8. Every person who shall leave any ship or vessel under order of quarantine, without permission from the health officer or the town council of such town, shall be fined not exceeding twenty dollars; and said town council may order such person to be returned on board of such vessel, there to remain until said council order him to be dismissed.

SEC. 9. If any vessel shall arrive in the waters of the state, bound to the port of Providence, at any time while the quarantine regulations of the city of Providence are in force, no person on board such vessel shall leave the same until such vessel shall have been visited and examined by the health officer of said city, and permission to land therefrom shall have been given by such health officer or by the board of aldermen of said city, to such person, to enter therein.

SEC. 10. Every person leaving such vessel, as aforesaid, without such permission first had and obtained, shall be fined not exceeding twenty dollars; and said board of aldermen may cause such person to be returned to such vessel in case she is under quarantine, there to remain until permitted to depart therefrom.

SEC. 11. Every sheriff, deputy sheriff, town sergeant and constable shall carry the rules and regulations of the town council within his precinct, into effect.

SEC. 12. The fines for the violation of any of the provisions of this chapter shall be recovered to the use of the town where the offence was committed.

# CHAPTER 83.

## OF THE STATE BOARD OF HEALTH.

Section 1. The governor with the advice and consent of the senate shall appoint six persons, two from the county of Providence and one from each of the other counties, who shall constitute the state board of health, one of whom shall be appointed in each year for the term of six years from the first day of July. Any appointment to fill a vacancy shall be for the remainder of the term. Of the persons so appointed, at least three shall be well educated physicians and members of some medical society incorporated by the state. The governor may remove any member for cause, at any time, upon the written request of two-thirds of the board.

Sec. 2. The board shall take cognizance of the interests of life and health among the citizens of the state; they shall make investigations into the causes of disease, and especially of epidemics and endemics among the people, the sources of mortality, and the effects of localities, employments, conditions and circumstances on the public health, and shall do all in their power to ascertain the causes and the best means for the prevention of diseases of every kind in the state. They shall publish and circulate, from time to time, such information as they may deem to be important and useful for diffusion among the people of the state, and shall investigate and give advice in relation to such subjects relating to the public health, as may be referred to them by the general assembly or by the governor when the general assembly is not in session.

Sec. 3. The state board of health shall also investigate the subject of diseases among cattle or other animals.

Sec. 4. The board shall meet in the city of Providence once in three months, and as much oftener as they may deem necessary. No member of the board, except the secretary, shall receive any compensation for his services; but the actual personal expenses of any member, while engaged in the duties of the board, shall be paid by the state.

Sec. 5. The board shall elect a well qualified physician as their secretary, who shall be *ex-officio* a member of the board, the commissioner of public health and state registrar, but he shall not be permitted to vote on any question in which he is personally interested or be entitled to any additional compensation for mileage or expenses.

Sec. 6. The secretary of the board shall make inquiry from time to time, of the clerks of town and local boards of health and practising physicians in relation to the prevalence of any disease, or knowledge of any known or generally believed source of disease or causes of general ill-health, and also in relation to the proceedings of the said boards of health, in respect of acts for the promotion and protection of the public health, and also in relation to diseases among domestic animals in their several towns; and the said clerks of town and local boards of health and said practising physicians shall give information, in reply to said inquiries, of such facts and circumstances as shall have come to their knowledge.

Sec. 7. The secretary shall perform and superintend the work prescribed for said board by law, and such other duties as the board may require, and he shall receive such salary, not in excess of twelve hundred dollars annually, as the board may determine. He shall hold his office during the pleasure of the board, and may be removed at any regular meeting by a majority vote of the members thereof.

SEC. 8. The governor shall provide a suitable office for the board in the city of Providence, and the actual expenses of the board and of the members thereof, when certified by the chairman and approved by the governor, shall be paid from the state treasury.

SEC. 9. The board shall make a report in print to the general assembly, annually, of its proceedings during the year ending on the thirty-first day of December next preceding, with such suggestions in relation to the sanitary laws and interests of the state as they shall deem important.

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## CHAPTER 84.

### OF CONTAGIOUS AND INFECTIOUS DISEASES AMONG CATTLE.

SECTION 1. Every person bringing into the state any neat-cattle or other animals which he knows to be infected with any infectious or contagious disease, or who shall expose such cattle or other animals, known to him to be so infected, to other cattle and animals not infected with such disease, shall be fined not less than one hundred dollars nor more than five hundred dollars.

SEC. 2. The town councils of the several towns may pass such ordinances as they may think proper, to prevent the spread of infectious or contagious diseases among cattle and other animals within their respective towns, and may prescribe penalties for the violation thereof, not exceeding twenty dollars for any one offence.

SEC. 3. The state board of health may prohibit the introduction of any cattle or other domestic animals into the state. Every person who shall bring, transport or introduce any cattle or other domestic animals into the state, after said board or any one of them shall have issued an order forbidding the same, or after said board shall have published for five successive days in such newspapers published in this state as the said board may direct, an order forbidding such introduction, shall be fined not exceeding three hundred dollars for every such offence; and every officer or agent of any company or other person who shall violate such order, shall be subject to the fine aforesaid. In case of the introduction into the state of cattle or other domestic animals, contrary to the order of said board, the introduction of each animal shall be deemed a separate and distinct offence.

SEC. 4. Said board shall endeavor to obtain full information in relation to any contagious disease which may prevail among cattle or other domestic animals near the borders of the state, and shall publish and circulate such information in their discretion; and should any such disease break out, or should there be reasonable suspicion of its existence among cattle or other domestic animals in any town in the state, they shall examine the cases, and publish the result of their examination, for the benefit of the publc.

Sec. 5. Said board may appoint suitable and discreet persons, on or near the several highways, turnpike-roads, railroads and thoroughfares in the state, who shall inquire into all violations of this chapter and report the same to said board.

Sec. 6. Every person who shall sell, or offer to sell any cattle or other domestic animals, or any part thereof, known to him to be infected with any contagious disease, or with any disease dangerous to the public health, or who shall sell, or offer to sell any milk from any such cattle or other domestic animals, shall be fined not exceeding one thousand dollars or be imprisoned not exceeding two years, either or both, in the discretion of the court.

Sec. 7. Said board may make all necessary regulations for the prevention, treatment, cure and extirpation of such disease; and the value of all cattle or other domestic animals killed on the written order of said board shall be appraised by three disinterested persons to be appointed by said board, such appraisal to be made immediately before the cattle or other domestic animals are killed, and the amount of such appraisal shall be paid by the state to the owner of such cattle or other domestic animals; and every person who shall fail to comply with any regulation so made shall be fined not exceeding three hundred dollars or be imprisoned not exceeding one year.

Sec. 8. Whenever said board shall make and publish any regulations concerning the extirpation, cure or treatment of cattle or other domestic animals infected with, or which have been exposed to any contagious disease, such regulations shall supersede the regulations made by the authorities of the several towns and cities upon the same subject; and the operation of such regulations made by said authorities shall be suspended during the time those made by said board shall be in force.

Sec. 9. All orders, appointments and notices from said board, except the order of notice provided for in section three, shall bear the signature of the president or chairman and secretary.

Sec. 10. All prosecutions for offences against the provisions of this chapter shall be commenced within thirty days after the same shall have been committed, and not afterwards.

## CHAPTER 118.

## OF THE INSPECTION OF SALERATUS, SODA, AND CREAM OF TARTAR.

Section 1. The city council of Providence shall, and the town councils of the several towns may, appoint an inspector of saleratus, bicarbonate of soda, and cream of tartar, for said city and towns respectively.

Sec. 2. Every inspector shall, whenever requested, test such article as shall be presented to him for inspection, and shall give his certificate to any person applying therefor, whether said article be impure or adulterated; and for every such certificate he shall be entitled to the sum of two dollars.

Sec. 3. Every inspector shall, whenever requested, make an analysis of any such article as may be presented to him for that purpose, and shall give his certificate to any person who shall apply therefor of the result of such analysis, for which certificate he shall be entitled to the sum of ten dollars.

SEC. 4. Every person who shall sell saleratus, bicarbonate of soda, or cream of tartar, which has been adulterated, and thereby rendered an impure article, shall be fined twenty dollars, together with the cost of testing and analyzing such impure article; one half of said penalty to the use of the city or town where such sale shall be made, and the other half thereof, together with the cost of testing and analyzing such impure article, to the use of the person who shall sue for the same.

## CHAPTER 127.

### OF MILK.

SECTION 1. Milk shall be sold by wine measure, and all measures used in the sale of milk shall be sealed by the sealer of weights and measures of the town where the person so using the same shall usually reside; or of the town where such milk shall be measured for use; and every person violating the provisions of this section shall forfeit ten dollars for each offence.

SEC. 2 The mayor and aldermen of any city, and the town council of any town, may annually elect one or more persons to be inspectors of milk therein, who shall be engaged to the faithful discharge of the duties of their office. Every inspector shall give notice of his election, by publishing notice thereof for two weeks in some newspaper published in the city or town from which he shall be appointed; or, if no newspaper be published therein, by posting up such notice in two or more public places in such city or town.

SEC. 3. Every inspector of milk shall have an office, and a book, for the purpose of recording the names and places of business of all persons engaged in the sale of milk within the limits of his town. He may enter any place where milk is stored or kept for sale, and examine all carriages used in the conveyance of milk; and whenever he has reason to believe any milk found by him is adulterated, he shall take specimens thereof, and cause the same to be analyzed or otherwise satisfactorily tested, the result of which he shall record and preserve as evidence; and a certificate of such result, sworn to by the analyzer, shall be admissible in evidence in all prosecutions under this chapter. The inspector shall receive such compensation as the mayor and aldermen or town council shall determine.

SEC. 4. Whoever engaging in or being engaged in the business of selling milk and conveying the same for sale, neglects to cause his name and place of business to be recorded in the inspector's book, and his name legibly and conspicuously placed and constantly kept upon all carriages used by him in the conveyance of milk, before engaging in the sale thereof, and whoever being engaged in selling milk and conveying the same for sale shall neglect to renew such record annually, between the first day of February and the first day of March, shall forfeit twenty dollars for the first offence, and for a second and each subsequent offence fifty dollars; and whoever offers for sale milk produced from cows fed upon the refuse of distilleries, or any substance deleterious to the quality of the milk, or whoever offers for sale milk produced from sick or diseased cows, shall forfeit twenty dollars for the first, and fifty dollars for every subsequent offence; and whoever, in the employment of another, violates any provision of this section, shall be held equally guilty with the principal and suffer the same penalty.

SEC. 5. Whoever sells or exchanges, or has in his possession with intent to sell or exchange, or offer for sale or exchange, as pure milk adulterated milk, skimmed milk, or milk from which the cream or any part thereof has been removed, or milk to which water or any foreign substance has been added, shall, for each offence, be punished by a fine of not less than twenty, nor more than one hundred dollars.

SEC. 6. Every inspector of milk shall institute complaints, on the information of any person, who shall lay before him satisfactory evidence on which to sustain the same.

SEC. 7. Every inspector of milk shall cause the provisions of this chapter to be published in his town, at least three times, in some newspaper printed in said town, or some newspaper in the county in which the town is situated.

SEC. 8. Every inspector shall cause the name and place of business of all persons convicted under this chapter, to be published in two newspapers printed in the town or county where the offence shall have been committed.

## ACTS IN AMENDMENT OF CHAPTER 127.

### OF MILK.

## CHAPTER 276.

(OF PUBLIC LAWS.)

SECTION 1. Section 5 of chapter 127 of the Public Statutes is hereby amended so as to read as follows:

"SEC. 5. No person shall sell or exchange or have in his possession with intent to sell or exchange, or offer for sale or exchange, adulterated milk or milk to which water or any foreign substance has been added."

SEC. 2. Every person who shall sell, exchange or deliver, or shall have in his custody or possession with the intent to sell or exchange or deliver, for himself or as the employee of any other person, milk from which the cream or any part thereof has been removed, or which shall not contain two and one-half (2½) per centum of milk fats, shall distinctly mark, in letters not less than one inch in length, in a conspicuous place above the centre, upon the outside of every vessel, can or package containing such milk, the words "skimmed milk," and such milk shall only be sold in or retailed out of a can, vessel or package so marked.

SEC. 3. In all prosecutions under this act, if the milk shall be shown upon analysis to contain more than eighty eight per centum of watery fluids, or to contain less than twelve per centum of milk solids, or less than two and one-half per centum of milk fats, it shall be deemed for the purpose of this act to be adulterated.

Sec. 4. Every person who shall be found guilty before a justice court of violating any of the provisions of this act, upon the first conviction shall be fined twenty dollars; and upon the second, and every subsequent conviction, shall be fined twenty dollars and be imprisoned in the county jail for ten days.

Sec. 5. All acts and parts of acts inconsistent herewith are hereby repealed.

## CHAPTER 560.

(OF PUBLIC LAWS.)

Section 1. Any chief of police and any inspector of milk and such special constables as the town council of any town, or the board of aldermen of any city may appoint for that purpose, shall make complaints and prosecute for all violations within the city or town wherein they are appointed or elected, of any of the provisions of chapter 127 of the Public Statutes, and of any amendments thereof or additions thereto, and they each shall be exempt from giving surety for costs on any complaint made as aforesaid.

Sec. 2. This act shall take effect on and after its passage, and chapter 372 of the Public Laws and all other acts and parts of acts inconsistent herewith are hereby repealed.

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## CHAPTER 130.

## OF THE ASSAY OF LIQUORS.

Section 1. The governor shall annually appoint a state inspector and state assayer of liquors, each of whom may appoint as many deputies as may be necessary.

Sec. 2. The assayer, or his deputy, shall analyze all spirituous and intoxicating liquors whenever required by the inspector or by the attorney general, and shall certify the result of such analysis to the officer requiring the same to be made, which certificate shall be evidence, in all proper courts, of the quality of the liquors assayed.

Sec. 3. The assayer, or his deputy, shall receive the sum of one dollar for every such analysis and certificate; and the inspector, or his deputy, shall receive the sum of one dollar for every inspection of liquors authorized by this act, together with ten cents per mile for every mile's travel required in the performance of such duty.

Sec. 4. No ale, rum, wine, or other strong or spirituous liquors, or malt or mixed intoxicating liquors, shall be kept or offered for sale, or sold in this state, unless the same shall have been inspected by the inspector of liquors or his deputy, and assayed by the assayer or his deputy.

Sec. 5. Every person keeping for sale, or offering to sell, or selling, any ale, rum, wine, or other strong or spirituous liquors, or malt or mixed intoxicating liquors, unless the same shall have been inspected and assayed, and the package containing the same shall have been branded and marked as is provided in this chapter, shall be fined not less than one hundred dollars, or be committed to the state work-house and house of correction, not exceeding three months.

SEC. 6. Every person keeping for sale, or offering to sell, or selling, any impure or adulterated or mixed liquors, or who shall sell any spirituous or intoxicating liquors of a quality inferior to that which such liquors are represented to be, shall be fined not less than one hundred dollars, nor more than three hundred dollars, or be committed to the state farm not exceeding three months, for the first offence: and upon the second and every subsequent conviction for violating the provisions of this section, shall be both fined and committed to the state work-house and house of correction, as aforesaid.

SEC. 7. Every person keeping for sale, or offering to sell, or selling, any adulterated or impure liquors containing any poison or deleterious ingredients injurious to health, shall be fined not less than three hundred dollars, nor more than five hundred dollars, or be committed to the state farm not exceeding six months.

SEC. 8. The person for whom any liquor shall be inspected, or whose liquors shall be assayed, shall pay to the officer making the inspection or assay the costs allowed therefor by this act; and if such costs shall not be paid within twenty-four hours after demand shall be made therefor, the officer entitled to receive the same may sue for and recover the same, with his costs of suit, and, in addition thereto, fifty per centum of the costs of such assay or inspection, together with such reasonable sum as he may have paid for counsel fees, to be allowed by the court before which such action shall be tried.

SEC. 9. The inspector of liquors and his deputies may, in the execution of the duties of their office, enter any place where liquors are kept for sale, and take samples thereof to be assayed; and every person who shall be convicted of threatening, resisting, or obstructing any such inspector or deputy inspector, when in the execution of the duties of his office, shall be fined not exceeding five hundred dollars, or be imprisoned not exceeding one year.

SEC. 10. In addition to the penalties hereinbefore provided for keeping, or for offering for sale, or for selling, impure or adulterated liquors, all such liquors, and the casks, barrels, or other vessels containing the same, shall be forfeited to the state, and a warrant for their seizure may issue upon complaint for keeping for sale, selling, or offering for sale, any liquors in violation of the provisions of this chapter, if such complaint shall charge that the offender kept such adulterated or impure liquors for sale, or that he keeps such liquors and intends to sell the same without having the same inspected and assayed as is herein provided; and the officer charged with the service of any such warrant, in addition to apprehending such offender, shall search the premises and seize the liquors in such warrant described, and hold such liquors to abide the event of the suit, and if the accused shall be found guilty, the said liquors, if they shall be found to be his, shall be adjudged to be forfeited to the state, and be ordered to be destroyed, under the direction of the court before which the offender shall be tried; otherwise, the officer having the custody of such liquors shall return them to the place from which he took the same.

SEC. 11. The having in possession in a place of business or in any place, building, or dwelling where liquors are sold, of one gallon or upwards of impure or adulterated liquors, shall be *prima facie* evidence that such liquors are kept for sale by the person in whose possession such impure or adulterated liquors may be found.

Sec. 12. The inspector of liquors, or his deputy, shall brand or stamp the words, "Inspected and Assayed," with the date of the inspection and the initials of the inspector, on every package of liquors by him inspected, and which has been assayed.

Sec. 13. Every inspector, or his deputy, who shall brand or stamp any package of liquors as having been inspected or assayed, and which shall not have been inspected or assayed, or which, having been inspected and assayed, shall, at the time the same was so inspected and assayed, have been found to be impure or adulterated, shall be imprisoned three months.

Sec. 14. Every person who, without being an inspector of liquors, shall use, or fraudulently imitate the brand or stamp of the inspector of liquors, shall be deemed to be guilty of forgery, and shall be punished as for forgery.

Sec. 15. Every person who shall put, or cause to be put, any liquor as aforesaid into any cask, barrel or other package bearing the brand or stamp of the inspector of liquors, without having first erased such marks, with the design of evading any provision of this chapter, shall be imprisoned for three months.

Sec. 16. No inspector or assayer, or deputy inspector or assayer of liquors, shall accept any reward or gratuity while in office from any person in any way engaged in selling liquors; and every such inspector or assayer, or deputy inspector or assayer, who shall accept any such reward or gratuity, shall be fined not less than one hundred dollars, or be imprisoned not less than three months.

Sec. 17. The inspector of liquors shall prosecute every person violating any of the provisions of this chapter.

## CHAPTER 131.

### OF MEDICINES AND POISONS.

Section 1. No person, unless a registered pharmacist, or registered assistant pharmacist in the employ of a registered pharmacist, or unless acting as an aid under the immediate supervision of a registered pharmacist, or a registered assistant pharmacist, within the meaning of this chapter, shall retail, compound, or dispense medicines or poisons, except as hereinafter provided.

Sec. 2. Every person, in order to be a registered pharmacist or a registered assistant pharmacist, within the meaning of this chapter, shall be either a graduate in pharmacy, a practising pharmacist, or a practising assistant in pharmacy. Graduates in pharmacy shall be such as have obtained a diploma from a regularly incorporated college of pharmacy, and shall have presented satisfactory evidence of their qualifications to the state board of pharmacy. A practising pharmacist shall be deemed to be a person, who, on the 24th day of March, A. D. 1871, kept, and continued thereafter to keep an open shop for compounding and dispensing the prescriptions of medical practitioners, and for the retailing of drugs and medicines, and who shall give to the state board of pharmacy satisfactory evidence of his qualifications, and shall have declared his intentions in writing of keeping open shop for the compounding of prescriptions and the retailing of drugs and medicines; and such other persons as shall have given to the state board of pharmacy satisfactory evidence of their qualifications, and shall have declared their intentions in writing of keeping open shop for the compounding of prescriptions, and the retailing of drugs and medicines. A practising assistant in pharmacy shall be deemed to be a person who shall have served three years' apprenticeship in a shop where the prescriptions of medical practitioners are compounded, and shall have passed a satisfactory examination before the state board of pharmacy.

SEC. 3. The state board of pharmacy shall consist of seven persons, to be appointed by the governor from the registered pharmacists of the state, and shall hold office for the term of three years, and until their successors are appointed. The members of the pharmaceutical board of the state, appointed by the governor, shall constitute, for the term for which they were appointed, the state board of pharmacy, within the meaning of this chapter. On the first of July, A. D. 1873, and in every third year thereafter, the governor shall appoint the state board of pharmacy; and in case of vacancy at any time, arising from resignation, death, or removal from the state, the governor shall have power to fill such vacancy from the registered pharmacists of the state. Four members of said board shall constitute a quorum. Said board shall organize by the election of a president and secretary; both of whom shalll sign all certificates and other official documents. Said board shall meet twice a year, and shall have power to make by-laws and all necessary regulations, not repugnant to law, for the proper fulfilment of their duties. The secretary of said board shall also be registrar of pharmacists. The duties of said board shall be, to examine all applicants for registration; to direct the registration by the registrar of all persons properly qualified or entitled thereto, and report annually to the general assembly on the condition of pharmacy, together with the names of all registered pharmacists and assistant pharmacists. The duties of the registrar of pharmacists shall be, to keep a book in which shall be entered, under the supervision of the state board of pharmacy, the name and place of business of every person who shall apply for registration. The registrar shall note the fact against the name of any registered pharmacist, or assistant pharmacist, who may have died or removed from the state, or disposed of or relinquished his business, and shall make all necessary alterations in the location of persons registered under this chapter.

SEC. 4. Every person applying for examination and registration shall pay to the state board of pharmacy ten dollars, and on passing the examination required, shall be furnished, free of expense, with a certificate of registration. Every registered assistant pharmacist may, with the consent of said board, be entitled to registration as a registered pharmacist, and shall be furnished with a certificate of registration, for which certificate he shall pay the registrar one dollar. Every certificate, issued by said board, shall be renewed annually, for which renewal one dollar shall be paid to the registrar. The fees received for examinations, registration and certificates, shall be appropriated to defray the expenses of the state board of pharmacy.

SEC. 5. Every person, not a registered pharmacist, who shall keep open shop for the retailing and dispensing of medicines and poisons; or who shall take, use, or exhibit the title of registered pharmacist; and every person who shall violate any of the provisions of this chapter, shall, upon the first conviction, be fined fifty dollars, and upon the second, and every subsequent conviction, shall be fined one hundred dollars; and all fines recovered shall enure, one-half to the state, and the other half to the complainant: *Provided, however*, that in towns or parts of towns where there is no registered pharmacist within three miles, it may be lawful for any person to sell the usual domestic medicines put up by a registered pharmacist, and marked with his label; such person procuring annually a certificate from the state board of pharmacy therefor, and paying one dollar for such certificate.

Sec. 6. Nothing hereinbefore contained shall apply to any practitioner of medicine, who does not keep open shop for the retailing, dispensing, or compounding of medicines or poisons, nor prevent him from administering or supplying to his patients such articles as he may deem fit and proper; nor shall it interfere with the making and dealing in proprietary medicines (popularly called patent medicines), unless such medicines be wholly or in part composed of some of the articles enumerated in Schedule A, of this chapter; nor with the business of wholesale dealers in supplying medicines and poisons to registered pharmacists and physicians, and for use in the arts.

Sec. 7. No person shall hereafter sell, either by wholesale or retail, any of the poisons enumerated in Schedule A, of this chapter, without distinctly labelling the bottle, box, vessel, or paper, and wrapper or cover in which said poison is contained, with the name of the article, the word POISON, and the name and place of business of the seller; and every registered pharmacist selling or dispensing any of said poisons shall first enter in a book, to be kept for that purpose only, and subject always to inspection by the state board of pharmacy, or any officer or agent thereof, or other proper authority, and to be preserved for at least five years, a record of the same in accordance with Schedule B of this chapter: *Provided*, that if any of said poisons form a part of the ingredients of any medicine or medicines compounded in accordance with the written prescription of a medical practitioner, the same need not be labelled with the word poison; but all prescriptions, whether or not composed in part or in whole of any of said ingredients, shall be carefully kept by the pharmacist on a file or in a book, used for that purpose only, and numbered in the order in which they are received or dispensed, and every box, bottle, vial, vessel, or packet containing medicines so dispensed, shall be labelled with the name and place of business of the registered pharmacist so dispensing said medicine, and be numbered with a number corresponding with that on the original prescription, retained by said pharmacist on such book or file. Such prescription shall be preserved at least five years, and shall be open to the inspection of the writer thereof, and a copy shall be furnished free of expense, when demanded by either the writer or the purchaser thereof.

Sec. 8. Every person who shall knowingly adulterate, or cause to be mixed, any foreign or inert substance with any drug or medicinal substance, or any compound medicinal preparation recognized by the pharmacopœia of the United States, or of other countries, as employed in medicinal practice, with the effect of weakening or destroying its medicinal power, or who shall sell the same knowing it to be adulterated, shall, in addition to the penalties prescribed in section five hereof, forfeit to the use of the state, all articles so adulterated found in his possession, and shall be deprived of the right of practising as a pharmacist in this state thereafter. Whenever complaint shall be made of any violation of the provisions of this section, the state board of pharmacy, on being notified thereof, shall make investigation of the same, employing competent persons, when necessary, to make analysis of the articles alleged to be adulterated; and if such complaint shall be substantiated, said board shall assist in making prosecution against the respondent.

## SCHEDULE A.

Arsenic and its preparation.
Cotton Root and its preparation.
Corrosive Sublimate.
Cyanide of Potassium.
Ergot and its preparations.
Hydrocyanic Acid.
Opium and its preparations, Paregoric excepted.
Oxalic Acid.
Savin.
Strychnia.
Volatile Oil of Bitter Almonds, of Pennyroyal, of Savin, and of Tansy.
Proprietary or secret medicines recommended, sold, or advertised as Emmenagogues and Parturients.

## SCHEDULE B.

*Form in which registered pharmacists and retail dealers in poison shall keep the poison-book.*

| Date. | Name of purchaser. | Name and quantity of Poisons sold. | For what purpose said to be required. | Remarks. |
|---|---|---|---|---|
| | | | | |

## CHAPTER 245.

### OF OFFENCES AGAINST THE PUBLIC HEALTH.

SECTION 1. Every person who shall sell any kind of diseased, corrupted, adulterated, or unwholesome provisions, whether for meat or drink, without making the same known to the buyer, shall be imprisoned not exceeding six months, or be fined not exceeding two hundred dollars.

SEC. 2. Every person who shall adulterate, for the purpose of sale, any substance intended for food, or any wine, spirits, malt liquor, or other liquor intended for drinking, shall be imprisoned not exceeding six months, or be fined not exceeding two hundred dollars.

SEC. 3. Every person who shall adulterate, for the purpose of sale, any drug or medicine, shall be imprisoned not exceeding six months, or be fined not exceeding two hundred dollars.

SEC. 4. Every person who shall kill, or cause to be killed, for the purpose of sale, any calf less than four weeks old, or shall sell, or have in his possession with intent to sell, the meat of any calf which he knows to have been killed when less than four weeks old, shall be fined not exceeding twenty dollars.

# PUBLIC LAWS.

## CHAPTER 415.

### AN ACT IN RELATION TO THE GIVING OF INSTRUCTION IN PHYSIOLOGY AND HYGIENE IN THE PUBLIC SCHOOLS.

SECTION 1. The school committees of the several towns shall make provision for the instruction of the pupils in all schools supported wholly or in part by public money, in physiology and hygiene, with special reference to the effects of alcoholic liquors, stimulants and narcotics upon the human system.

## CHAPTER 495.

### AN ACT IN AMENDMENT OF AND IN ADDITION TO CHAPTER 79, OF THE PUBLIC STATUTES ENTITLED "OF NUISANCES."

SECTION 1. The town council of any town may order the owner or occupant of any premises in such town, to remove at his own expense any nuisance, source of filth, filth or cause of sickness, found thereon within twenty-four hours or such other time as the town council may deem reasonable, after the service of the notice as prescribed in the next succeeeding section, and if the owner or occupant neglects so to do, he shall be fined not exceeding twenty dollars for every day during which he knowingly permits such nuisance, source of filth, filth or cause of sickness to remain after the time prescribed for the removal thereof, to be recovered to and for the use of the town.

SEC. 2. Such notice shall be in writing signed by the town clerk and served by any sheriff, deputy sheriff, constable, police constable or town sergeant, by reading the same in the presence or hearing of the owner, occupant, or his authorized agent, or by leaving a copy of the order personally with or at the last and usual place of abode of the owner, occupant or agent, if within this state. But if the premises are unoccupied and the owner or agent is unknown or without the state, the notice may be served by posting a certified copy of the same on the premises, and by advertising in one or more newspapers in such manner and for such length of time as the town council may direct.

SEC. 3. If the owner or occupant fails to comply with such order, the town council may cause the nuisance, source of filth, filth or cause of sickness to be removed; and all expenses incurred thereby shall be paid by the owner, occupant or other person who caused or permitted the same, to be recovered in an action of the case brought in the name of the town.

SEC. 4. The town councils of the several towns, when satisfied upon due examination that any cellar, rooms, tenement or building in its town occupied as a dwelling-place has become, by reason of the number of occupants or want of cleanliness or other cause, unfit for occupation as a dwelling-place and a cause of nuisance or sickness to the occupants or the public, may issue a notice in writing to such occupants or any of them, requiring the premises to be put in proper condition, as to cleanliness, or if they see fit, requiring the occupants to remove or quit the premises within such time as the town council may deem reasonable. If the persons so notified, or any of them, neglect or refuse to comply with the terms of the said notice, the town council may cause the premises to be properly cleansed at the expense of the owners or may remove the occupants forcibly and close up the premises, and the same shall not be again occupied as a dwelling-place without the consent and permission of the town council. If the owner thereafter occupies or knowingly permits the same to be occupied without such permission and consent, he shall be fined not exceeding twenty dollars for each day of occupation or permission to occupy the same as aforesaid, to be recovered to and for the use of the town.

SEC. 5. There shall be appointed in every town, by the town council thereof, a health officer, who shall perform the duties of said office for one year and until his successor has been appointed and qualified: *Provided*, however, that the said town council may remove said health officer at any legal meeting of said town council after notice to such officer.

SEC. 6. The health officer shall be the agent of the town council for making all sanitary inspections, and shall from time to time report to the town council the result of his inquiries. He shall perform the duties of health officer in seaport towns, as set forth in chapter 82 of the Public Statutes. He may make complaint without giving surety for costs in all cases of violation of any law, ordinance, rule or regulation relating to the public health in his town. In cases of emergency, when the council cannot be conveniently convened, he shall have all the authority conferred by this act upon town councils, but he shall within two days report in writing his action in each case to the clerk of the town council who shall bring the matter before the town council at its next meeting for its action.

SEC. 7. The cities of Providence and Newport, and such other towns as may establish a board of health or elect a superintendent of health, shall be exempt from the provisions of section 5 of this act; and the powers and duties of such boards of health and superintendents of health shall be commensurate with the powers and duties of the health officer as set forth in this act.

SEC. 8. All acts and parts of acts inconsistent herewith are hereby repealed, and this act shall go into effect from and after its passage.

## CHAPTER 511.

### AN ACT TO PREVENT THE ADULTERATION OF VINEGAR.

SECTION 1. No person shall by himself, his servant or agent, or as the servant or agent of any other person, sell, exchange, or have in his custody or possession, with intent to sell or exchange, or expose or offer for sale, or exchange as cider vinegar, any adulterated vinegar, or label, brand, or sell as cider vinegar, any vinegar not made exclusively from apple cider.

SEC. 2. All vinegars shall be without artificial coloring matter, and shall have an acidity equivalent to the presence of not less than four and one-half per cent. by weight of absolute acetic acid, and in case of a cider vinegar shall contain in addition not less than two per cent. by weight of cider vinegar solids upon full evaporation at the temperature of boiling water ; and if any vinegar contains any artificial coloring matter, or less than the above amount of acidity, or in case of a cider vinegar if it contains less than the above amount of acidity or of cider vinegar solids, is shall be deemed to be an adulteration within the meaning of this act.

SEC. 3. Inspectors of milk or such other officers as town councils may appoint shall make complaint for all violations of this act, and shall not be required to give surety for costs, and for the services required of them by this act shall receive compensation to be fixed by the town council, the compensation for the inspection of vinegar to be fixed at a sum not exceeding twenty-five cents for the inspection of each barrel of vinegar, such compensation to be paid by the person having such inspection made to such inspector.

SEC. 4. Every inspector of milk, or any officer appointed as hereinbefore provided, may enter any place where vinegar is stored or kept for sale and examine all carriages used in the conveyance of vinegar, and whenever he has reason to believe any vinegar found by him is adulterated, he shall take specimens thereof and cause the same to be analyzed or otherwise satisfactorily tested, the result of which he shall record and preserve as evidence, and a certificate of such result sworn to by the analyzer shall be admissible in evidence in all prosecutions under this chapter.

SEC. 5. Any person violating the provisions of this act shall be fined not exceeding one hundred dollars.

# RULES AND REGULATIONS

## OF THE STATE BOARD OF HEALTH IN RELATION TO GLANDERS AND OTHER FATALLY INFECTIOUS DISEASES AMONG DOMESTIC ANIMALS, ADOPTED IN COMPLIANCE WITH THE PUBLIC STATUTES, CHAPTER 84, SECTION 7.

SECTION 1. All persons, and especially every person practising veterinary surgery, or treating diseased horses or other animals, having knowledge or reason to suspect that any horse treated or seen by him has glanders, or farcy, or that any bovine animal has pleuro-pneumonia, Texas fever or other highly contagious or infectious disease, shall make report concerning the same, by mail or otherwise, giving the name of the owner or custodian of the said horse or bovine animal and place of keeping the same to the Secretary of the State Board of Health immediately.

SEC. 2. No person having the care, custody or ownership of any horse or horses having or suspected of having glanders or farcy, or any bovine animal having or suspected of having pleuro-pneumonia or any other dangerously infectious disease, and being so informed by any person having knowledge of the diseases of animals, shall sell or exchange or offer for sale any such horse, horses or other animals, or use or permit the same to be used or driven in any public highway, or be exposed to contact with any other animals of the same kind, except by permission of some member or agent of the State Board of Health.

SEC. 3. All persons having the care and custody of any domestic animal having or suspected of having any fatally infectious disease, shall permit any member of the State Board of Health, or any of the officers or agents of the said Board, free access to and full permission to examine any such animal, and shall securely and safely keep such animal isolated from all other animals of the same kind when required by any member of the State Board of Health or any of its officers or agents.

SEC. 4. Every person having possession of any horse or horses having or suspeceed of having glanders or farcy, shall be allowed to keep such horse or horses, if securely isolated from all other horses, until such suspicion is removed by recovery, or such progress made by the disease as to leave no reasonable doubt of its nature or character, and confirmed by the opinion of a competent veterinary surgeon or expert in the diseases of horses, and accepted as such by the State Board of Health, or its agent and every such person shall, upon such confirmation, cause such horse or horses diseased with glanders or farcy to be killed and buried at a depth of four feet in the earth: *Provided*, however, that if any horse so affected shall be found abandoned, and the owner not known, or if the owner of any horse so affected is unable, by reason of poverty, to procure such burial, then the Secretary of the State Board of Health shall procure such burial, and the bills of expense for the performance of such burial, when certified by the Secretary of the State Board of Health, shall be paid from the general treasury.

SEC. 5. Any person violating, or refusing, or wilfully neglecting to comply with the preceding rules and regulations, shall be fined (as provided by the Public Statutes,) not exceeding three hundred dollars, or imprisoned not more than one year, or both fine and imprisonment at the discretion of the court trying the same.

# SUGGESTIONS TO HEALTH OFFICERS.

**By Public Statute the town councils of all towns in Rhode Island are required to appoint one or more Health Officers.** The office, in actual importance, is scarcely exceeded by any other municipal appointment. Health is the foundation of enterprise, industry, good social order and prosperity. The health officer is the conservator of that foundation, the sanitary sentinel of households and communities, the sentry on guard to give notice of the approach or presence of the foes of health, the emissaries of disease.

**A Health Officer should feel the importance of his official position; its dignity and responsibility.** Upon his judicious activity, intelligence and discernment, rests in large measure, the future comfort and prosperity of his fellow townsmen and their families.

It is proposed to present some suggestions in relation to the duties and powers of health officers in Rhode Island.

If all health officers were well educated physicians, (who are in all cases better qualified for such positions by reason of their medical training) such suggestions would be less needful.

In the first place the officer should make himself thoroughly acquainted with all the laws of the State having relation to the public health, and also with the ordinances of his own township or city, having the same relation.

The Public Statutes and Laws may be found in some instances somewhat general in terms and phraseology, but for the most part they are specific and clear. Municipal ordinances are usually quite definite and direct.

With a knowledge of the laws and their varied applications well in hand, he is equipped for service. But if not a physician, and without sanitary study or experience, he is like an untrained soldier, clad in uniform and supplied with arms, but without a knowledge of their best practical use, or who are his foes and where they are to be found.

He should acquire possession as soon as possible, of one or more of several valuable works, treating of hygiene and general sanitation. The practical information which he will derive therefrom, will be found not only desirable, but practically almost indispensable.

## NUISANCES.

Nuisances are of various kinds; they may be private or public, they may be injurious to health, or simply offensive. It is the duty and consequently within the province of the health officer to decide what nuisances are prejudicial to health, whether private or public. **No person has a legal right to continue in the possession of any property or thing, which is an injury to the property or person of any other individual.** An overflowing cesspool, an overfull privy or uncleaned privy vault or foul sink drain, sending out gases deleterious to health, might not be a nuisance dangerous to the health of persons living two hundred yards away, and no legal action would be taken to abate them, though the occupier of the premises might, by continuance of the same, be committing slow suicide and poisoning his family by degrees.

But if the same kind of centres of filth, and foulness to the same extent, were but a few feet or yards from the residence of other persons, legal action could be taken and the nuisances prejudicial to health abated. It is the duty of the health officer, however, to warn all parties of the danger arising from the continued inhalation of the gases arising from any accumulations of putrefying filth whether on their own premises or that of others.

The health officer will find occasion in compact parts of towns, and it will be his duty also, to ascertain the location of any such accumulations of filth, whether in stables, fish houses, slaughtering houses, bone boiling or trying establishments, swine pens, or dumped in or by the highway or in the yards of occupied buildings, and especially in the cess-pools and privies of such compact places. If nuisances likely to cause sickness are found, and the health officer has no authority to abate them, and the owners or occupants of the premises decline to act upon the advice or request of the officer, report should be made to the town council forthwith, and an order for abatement be requested.

The powers conferred by the Public Statutes upon town councils and boards of aldermen, are very ample in the direction of permitting the enactment of ordinances in relation to sources of sickness, and in promotion of the health of the towns-people, and the health officer should suggest such town rules and regulations, in addition to those in force, as in his judgment are needed for the better protection of the public health. (See Public Statutes, Chapter 79.)

The Health Officer is by law the agent of the town council in making all sanitary inspections, and may make complaint of violation of any law, ordinance or regulation of his town in relation to public health, without giving surety for costs in cases of prosecution. (See Public Laws, Chapter 495.)

## CONTAGIOUS DISEASES.

It is believed that epidemics of dangerous diseases may be prevented by timely attention to and the management of the first case or cases that occur. Prompt and vigorous action are urgently demanded. The restriction of communicable diseases dangerous to life can be accomplished only by immediate attention.

Upon the occurence of small pox, cholera, diphtheria or scarlet fever, it will be the duty of the health officer to confer with the physician having charge of the case or cases, and with him or otherwise as shall be deemed essential, provision should be made for the isolation of the sick, and such other methods adopted as seem to be required and circumstances will allow, for the protection of the surrounding population.

Superintendents or teachers of the schools should be notified of cases of such dangerous diseases when occurring among the pupils of such schools, or in the families of pupils attendant upon such schools. Children in families where dangerous communicable diseases exist, should not be allowed to attend any school, or associate or come in contact with any other children.

Health officers should urge the propriety and necessity of entirely private funerals in cases of death from diphtheria or scarlet fever, especially those of a malignant character, and should utterly forbid a public funeral in case of death from small-pox.

In cases of emergency, health officers have all the powers of the town council. (See Public Laws, Chap. 495, Sec. 6.) They can upon emergency, or when acting in special cases by order of the town council, place a guard at any place, building or dwelling, if needed for the more effective restriction of a communicable disease, and the expense of such guard must be paid by the town. (Chap. 81, Sections 15, 16, Public Statutes.)

The law requires that **all persons** shall give notice to the town council (or health officer) of the occurrence of any contagious or infectious disease, that occurs or is present in the house in which they live, and provides that **every person violating such requirement shall forfeit twenty dollars.** (See Pub. Stat. Chap. 81, Sections 13, 14.) The health officer should disseminate the knowledge of such requirement among the people.

As a protection from small-pox, the health officer should from time to time bring to the attention of the town council, the requirements of the law in relation to vaccination, and the manner in which such vaccination should be accomplished, and the record legally made. (Public Statutes, Chapter 81, Sections 28–31.)

Upon the occurrence of diphtheria, or scarlet fever in considerable numbers and in several families in the same neighborhood at the same time, the disease may be called epidemic and notice should be given by the health officer to the Secretary of the State Board of Health. The same notice should also be given immediately upon the occurrence of small-pox or epidemic cholera.

Excepting the **epidemic** prevalence of ordinary contagious diseases, the Secretary of the State Board of Health need not be notified, especially if the health officer is a physician or acting in consultation with a physician of good professional reputation.

In villages or places where a compact population extends into two or more towns, the health officers of each of such towns, should consult together and act in concert in all matters appertaining to the restriction of disease and other sanitary welfare of such villages or compact localities.

In seaport towns health officers have duties in relation to quarantine, additional to those of inland towns, for which reference is made to Chapter 82, Public Statutes.

## CONTAGIOUS DISEASES OF DOMESTIC ANIMALS.

Diseases of domestic animals are of considerable importance in relation to mankind, partly because of pecuniary loss from disability, keeping, care and treatment while sick, and entire loss by death, but in a sanitary point of view more important, as furnishing, on the part of animals whose flesh is eaten, of unhealthy food, and of impure milk from diseased cows. Horses affected with glanders or farcy are not only a loss to their owners, but threaten the property invested in horses of all other persons with whose horses they come in contact, Glanders may also be transferred to mankind and is incurable. The large prevalence of several of the diseases of domestic animals seem to have a malign influence upon human beings, frequently breeding distempers of a serious character. When a large number of animals in any locality are stricken with any largely fatal and contagious disease, it will be the duty of the health officer to investigate the cause and character of such disease, and endeavor to restrict and extirpate the same. The town councils have large powers in the direction of restricting contagious diseases among animals, and the State Board of Health has still larger powers. (See Public Statutes, Chapter 84.)

Notice of such large prevalence of contagious disease among domestic animals should be given to town councils immediately, and also to the Secretary or some member of the State Board of Health. All cases of glanders or farcy, or suspected cases of the same, should be immediately made known by the health officer to the Secretary of the State Board of Health, or some member of the Board, (See Rules and Regulations of the Board on a previous page.)

**In the interest of safety to life,** the health officer should give notice of violation of law in relation to the dispensing of medicines in apothecary stores by unqualified assistants, and in failing to properly label with the word "POISON" such medicines as are poisons dangerous to life, when taken in quantities much larger than prescribed. (See Public Statutes, Chapter 131.)

**The absence of means of escape in case of fire** renders many buildings dangerous to life as well as the liability to serious injury to limbs and bodily health. The absence of fire escapes or sufficiency of stairways on or in large manufacturing establishments, school buildings, hotels, boarding houses, &c., or ample doorways opening outward, and sufficient and well guarded stairways in public halls, churches and other buildings where considerable numbers of persons congregate, is a matter that legitimately comes under the supervision of the officer whose duty it is to conserve the public health.

## ADULTERATIONS OF FOOD, LIQUORS AND MEDICINES.

The health officer is the proper and qualified person to make complaint in cases of violation of law in relation to the sale of diseased, corrupted, adulterated or unwholesome provisions, whether animal or vegetable, if designed for food or drink. Any case of alleged violation of the law should be investigated by the health officer, and if found substantiated by facts, he should admonish the offender if the act was from ignorance or carelessness, but if from wilful disregard of law and of the public health, prosecution should be commenced forthwith. The sale of "**Bob Veal**" or "Slunk Veal," as it is variously called, is not only an imposition and a fraud, but the meat is unwholesome and unfit to eat by human beings. The health officer of every town should endeavor to ferret out and prosecute all wilful offenders and violators of Chapter 245 of the Public Statutes.

A very large number of articles used in cooking and in the various preparations of food, are constantly adulterated. Tea, coffee, spices, and all articles put up in packages are for the most part adulterated more or less by cheaper substances. Articles sold in bulk are usually less debased. Sugar is cheapened by the addition of glucose and impalpable sand. Butter by preparations of suet and other fats. In fact, but very few, if any, articles in every day use for food or drink escape adulteration. It may be said, however, that the substances in general use, at the present day, for cheapening the value of the materials in use for human aliment, are usually almost entirely free from any poisonous properties. Such adulterations are, as to dietetics, (with the exception of very young children and invalids,) comparatively harmless, but are not, therefore, any the less fraudulent as to public policy, or any the less reprehensible as a mode of public swindling. The law in relation to adulterations of butter, or artificial butter, of vinegar, &c., may be found in Chapter 126 of the Public Statutes, and Chapter 511 of the Public Laws.

**Liquors** sold by apothecaries are, in too many instances, far from being pure and unadulterated, as required by law. As liquors sold by them are, for the most part, ostensibly dispensed for the sick and for a specific action upon the human system, purity is an essential quality. The selling of **impure liquors** for purposes of restoring health, constitutes a crime. Suspected liquors will be assayed by the State Assayer. (See Chapter 130, Public Statutes.)

**Milk** is believed to be systematically adulterated by the admixture of water on the part of a large proportional number of those who deal in the article. Skimmed milk is said to be treated with gelatine, mucilages, preparations of animal fats and levigated chalk, to deceive purchasers and bring the article to the legal standard of solids and fats for pure milk. The use of chalk may be doubtful, it is so easy to detect its presence. The practice of dilution alone is more than a fraud. Milk is the almost exclusive diet of a large proportion of young children and of invalids of maturer years. Where a certain amount of pure milk is ordered and required during every twenty-four hours, if the article used is deficient in the normal amount of nutritive constituents, the child or invalid suffers therefrom, sometimes, doubtless, to the unfavorable turning of the scales of life and death.

As a question or practice having relation to the public health, milk adulteration should receive attention from the health officers of the State. Chapter 127 of the Public Statutes and amendments and additions thereto, should have careful perusal, and the violations of the provisions thereof receive official attention.

**Water** is subject to great debasement, which constitutes adulteration. In a circular published by the State Board of Health in 1878, the following remarks were made in relation to the purity of well water:

### CONTAMINATED WELL WATER.

"Subtle poisons may lurk in the well water, unperceivable to sight, smell or taste. Not unfrequently contaminated water has a finer relish than purer water. Wells, it must be borne in mind, drain an area of surface around them, in ordinary soils, of a distance equal in diameter to their entire depth, and may drain directly from sources of pollution a distance of many times their depth, by strata of rock or clay, dipping or inclining downward toward them, though the top surface drainage or inclination may be away from them. It will be evident that the danger will be very considerable, from privies, cesspools, sink drains, and all other collections of putrifying filth within a distance at least equal to two-thirds the depth of the well, which are lying upon the surface, or nothing but openings or holes or depressions in the soil, subjected to the heats of summer, and leached day after day by rainfalls and other fluids, the resulting polluted and pestiferous solution, percolating through the underlying earth down to the bottom of the well.

"While soils are to some extent the natural filterers and purifiers of water, some are but slightly such, and none can wholly filter out the subtle poisons that result from putrefactive decomposition of accumulated filth. For such accumulations, prompt and frequent removal and complete disinfection while remaining, are imperatively demanded for safety to life. On premises where no abundant water supply is obtainable, with free drainage by sewerage, by which all night soil, sink refuse and filth may be completely conveyed beyond harm, as in towns having water service and sewers, all privy vaults, cesspools and other receptacles of filth should have free ventilation and be water-tight, their contents kept from fermentation by *absolutely dry* earth, *dry* unleached ashes, or copperas or carbolic acid solution, and their contents frequently removed. Barrels that are strong and tight may be cut in two in the middle, and each half used, slid beneath or hung inside of privy vaults, or water-tight boxes of size requiring frequent removal, used in the same way. If the contents are to be used for fertilization, the carbolic acid solution should be omitted."

**Cesspools,** when near living or sleeping apartments, should have the ventilating flues reach higher than such apartments. All **untrapped** pipes leading from the sink, bath tub or other household convenience directly to the cesspool, are sources of great danger to the health of the occupants of such dwellings.

**Tests for Water.** A very simple and fairly conclusive method for testing water suspected of contamination by putrefaction of organic material, may be employed as follows:

Put in a clean, clear white glass half pint bottle, a small half-teaspoonful of crushed loaf or pure granulated sugar, and fill with the water to be tested. Put in a smooth and tightly-fitting cork reaching to the top of the water. The bottle should then be placed on a mantel near a stove, or on a register, or in a window subject to the heat of the sun, or other warm place where the temperature will not be less for the larger part of the time than 80 degrees, nor more than 110 degrees Fah. After standing twenty-four hours subjected to warmth as stated above, if the water remains unchanged, it may reasonably remove the suspicion of contamination by organic matter. If on the contrary the water becomes cloudy or milky, or its clearness or transparency be gone, or if fermentation has taken place, or if the water has an offensive odor, it should be entirely rejected for drinking purposes. Boiling for half an hour, however, would make it fairly safe for use.

There is another test in common use for detecting the presence of organic matter in water, called the permanganate of potash test. Have on hand a phial containing a solution of one grain of permanganate of potash in two ounces of distilled water. In another phial two drachms of pure sulphuric acid and two and one-half ounces of distilled water. It would be advisable for health officers to keep these on hand for immediate use. Keep in a dark place.

To use this test, take a gill of the suspected water in a clear glass tumbler and add half a teaspoonful of the sulphuric acid mixture and stir in well. Then add one, two or three drops of the permanganate solution, or as much as may be needed when diffused through the water to give it a pink color. If the pink color should entirely disappear in ten or fifteen minutes, it would indicate the presence of organic matter in sufficient quantity to render the water unfit for drinking.

There is considerable difference of opinion as to dependence upon the permanganate test, but the Secretary has employed it in quite a number of instances where more elaborate tests were afterwards made, with the result of confirming its general accuracy. The chemical tests for detecting the inorganic material of impure water, as the chlorides, nitrates, nitrites, etc., require more careful and elaborate manipulation, and should be assigned (unless the health officer is a physician) to a chemist or skilled physician. The secretary will, however, send directions for such examination when requested.

**Cellars.** The health officer should advise his constituents of the danger arising from wet and unventilated cellars. The circular alluded to above says in relation to cellars: "Death has come through the cellar to slay thousands upon thousands. Cellars with soil bottom must of necessity be damp, because like wells they drain the earth around them. Cellars that retain water for some weeks and are muddy a considerable part of the year, are among the most hazardous of household dangers. There is a kind of exhalation from the earthy bottom of such cellars, independent of any filth, called ground air, which is very detrimental to human health and especially promotive of pulmonary consumption. All cellars should be kept dry as possible by thorough drainage and good ventilation. But the warmth and moisture of all cellars, however well drained or cemented or both, favors the decomposition of the refuse of storage vegetables, and whatever droppings there may be of meats, butter, lard, cheese, or other animal products, and which emit gases dangerous to health. Such articles as are needed for the family supplies, should, as the weather grows warmer in the late spring and early summer months, be gathered into dry boxes, and all loose materials, refuse, etc., be carefully swept up and carried out, to ensure health in the family."

No one, nor all of the above suggestions having relation to the means of preserving health, can be taken as a substitute, or as making amends for, personal and household cleanliness. The body of the individual, the kitchen, the closet and the sleeping room should be kept scrupulously clean.

It is to be always kept in mind, that the three **indispensable requisites** for the promotion and preservation of health, are **good water, pure air** and **special cleanliness** of person and premises.

**Disinfection.** It will, doubtless, frequently happen, that the health officer will be called upon to give advice in relation to the best disinfectants and the best methods of disinfection. He may also be required, from time to time, to supervise or perform the work of disinfecting apartments, bedding, clothing, putrifying organic material, &c.

No better information can be given as to materials and methods, than is contained in the "Preliminary Report of a Committee on Disinfectants," appointed by the American Public Health Association, and published in the Seventh Annual Report of the State Board of Health of Rhode Island, and which is herewith reprinted for the greater convenience of health officers and for a wider circulation in the State.

## DISINFECTION AND DISINFECTANTS.

The object of *disinfection* is to prevent the extension of infectious diseases by destroying the specific infectious material which gives rise to them. This is accomplished by the use of *disinfectants.*

There can be no partial disinfection of such material; either its infecting power is destroyed or it is not. In the latter case there is a failure to disinfect. Nor can there be any disinfection in the absence of infectious material.

It has been proved for several kinds of infectious material that its specific infecting power is due to the presence of living micro-organisms, known in a general way as "disease germs;" and practical sanitation is now based upon the belief that the infecting agents in all kinds of infectious material are of this nature. Disinfection, therefore, consists essentially in the destruction of disease germs.

Popularly, the term disinfection is used in a much broader sense. Any chemical agent which destroys or masks bad odors, or which arrests putrefactive decomposition is spoken of as a disinfectant. And in the absence of any infectious disease * it is common to speak of disinfecting a foul cesspool, or bad-smelling stable, or privy vault.

This popular use of the term has led to much misapprehension, and the agents which have been found to destroy bad odors—*deodorisers*—or to arrest putrefactive decomposition—*antiseptics*—have been confidently recommended and extensively used for the destruction of disease germs in the excreta of patients with cholera, typhoid fever, etc.

The injurious consequences which are likely to result from such misapprehension and misuse of the word disinfectant will be appreciated when it is known that:

*Recent researches have demonstrated that many of the agents which have been found useful as deodorisers, or as antiseptics, are entirely without value for the destruction of disease germs.*

This is true, for example, as regards the sulphate of iron or copperas, a salt which has been extensively used with the idea that it is a valuable disinfectant.

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* The term "*infectious disease*" is used to denote a specific disease communicable from one person to another, as cholera, small-pox and scarlet fever. There is *infective matter* in the effluvia from putrefaction in sewers, cesspools, privies, etc., matter that taints, vitiates and corrupts the fluids of the body and gradually produces many varieties of extreme discomfort and many forms of ill-health, more or less serious, that does not cause diphtheria, scarlet fever or any specific disease that can be communicated from one person to another. It is, nevertheless, infective matter, in that it infects or poisons the human body, and the destruction or arrest of evolution of such matter, may properly, it would seem, as well as popularly, be called "disinfection," although no infectious disease be present in the vicinity. There may be serious ill-health from infection in the absence of specific disease germs.—*Sec. S. B. H.*

As a matter of fact, sulphate of iron in a saturated solution does not destroy the vitality of disease germs or the infecting power of material containing them. This salt is, nevertheless, a very valuable antiseptic, and its low price makes it one of the most available agents for the arrest of putrefactive decomposition in privy vaults, cesspools, &c.

*Antiseptic agents also exercise a restraining influence upon the development of disease germs, and their use during epidemics is to be recommended, when masses of organic material in the vicinity of human habitations can not be completely destroyed, or removed, or disinfected.*

While an antiseptic agent is not necessarily a disinfectant, all disinfectants are antiseptics; for putrefactive decomposition is due to the development of "germs" of the same class as that to which disease germs belong, and the agents which destroy the latter also destroy the bacteria of putrefaction, when brought in contact with them in sufficient quantity, or restrain their development when present in smaller amounts.

*A large number of the proprietary "disinfectants," so called, which are in the market, are simply deodorisers or antiseptics, of greater or less value, and are untrustworthy for disinfecting purposes.*

Antiseptics are to be used at all times when it is impracticable to remove filth from the vicinity of human habitations, but they are a poor substitute for cleanliness.

During the prevalence of epidemic diseases, such as yellow fever, typhoid fever and cholera, it is better to use, in privy vaults, cesspools, etc., those antiseptics which are also disinfectants—i. e., germicides; and when the contents of such receptacles are known to be infected this becomes imperative.

Still more important is the destruction at our seaport quarantine stations of infectious material which has its origin outside of the boundaries of the United States, and the destruction, within our boundaries, of infectious material given off from the persons of those attacked with any infectious disease, whether imported or of indigenous origin.

*In the sick room we have disease germs at an advantage, for we know where to find them as well as how to kill them.*

Having this knowledge, not to apply it would be criminal negligence, for our efforts to restrict the extension of infectious diseases must depend largely upon the proper use of disinfectants in the sick room.

## GENERAL DIRECTIONS.

*Disinfection of Excreta, etc.*—The infectious character of the dejections of patients suffering from cholera and from typhoid fever is well established; and this is true of mild cases and of the earliest stages of these diseases as well as of severe and fatal cases. It is probable that epidemic dysentery, tuberculosis, and perhaps diphtheria, yellow fever, scarlet fever and typhus fever may also be transmitted by means of the alvine discharges of the sick. It is therefore of the first importance that these should be disinfected. In cholera, diphtheria, yellow fever and scarlet fever, all vomited material should also be looked upon as infectious. And in tuberculosis, and in diphtheria, scarlet fever and infectious pneumonia, the sputa of the sick should be disinfected or destroyed by fire. It seems advisable also to treat the urine of patients sick with an infectious disease with one of the disinfecting solutions below recommended.

*Chloride of Lime,* or bleaching powder, is, perhaps, entitled to the first place for disinfecting excreta, on account of the rapidity of its action. The following standard solution is recommended:

### STANDARD SOLUTION NO. 1.

*Dissolve Chloride of Lime of the best quality* in soft water, in the proportion of four ounces to the gallon.*

Use one pint of this solution for the disinfection of each discharge in cholera, typhoid fever, etc. Mix well and leave in a vessel for at least ten minutes before throwing into privy vault or water-closet. The same directions apply for the disinfection of vomited matters. Infected sputum should be discharged directly into a cup half full of the solution.

### STANDARD SOLUTION NO. 2.

*Dissolve Corrosive Sublimate and Permanganate of Potash in soft water, in the proportion of two drachms of each salt to the gallon.*

This is to be used for the same purposes and in the same way as *Standard Solution No. 1.* It is equally effective, but it is necessary to leave it for a longer time in contact with the material to be disinfected—at least an hour. The only advantage which this solution has over the chloride of lime solution consists in the fact that it is odorless, while the odor of chlorine in the sick room is considered by some persons objectionable. The cost is about the same.† It must be remembered that this solution is highly poisonous. It is proper, also, to call attention to the fact that *it will injure lead pipes if passed through them in considerable quantities.*

### STANDARD SOLUTION NO. 3.

*To one part of Labarraque's Solution, (liquor sodæ chlorinatæ,) add five parts of soft water.*

This solution is more expensive ‡ than the solution of chloride of lime, and has no special advantages for the purposes mentioned. It may, however, be used in the same manner as recommended for *Standard Solution No. 1.*

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* NOTE.—Good chloride of lime should contain at least 25 per cent. of available chlorine. It may be purchased by the quantity at 5 cents per pound. The cost of the standard solution recommended is therefore less than two cents a gallon. A clear solution may be obtained by filtration or by decantation, but the insoluble sediment does no harm, and this is an unnecessary refinement.

† Corrosive sublimate costs about 70 cents a pound, and permanganate of potash 65 cents a pound, by the single pound. This makes the cost of *Standard Solution No. 2* a little more than two cents a gallon.

‡ We assume that the solution used will contain at least 3 per cent. of available chlorine, which would give us 0.5 per cent. in the diluted solution. The cost per gallon of the undiluted solution should not be more than fifty cents by the quantity. This would make our standard solution cost between eight and nine cents a gallon.

The following powder is also recommended for the disinfection of excreta in the sick room and of privy vaults, etc.:

### DISINFECTING AND ANTISEPTIC POWDER.

One pound of chloride of lime; one ounce of corrosive sublimate; nine pounds of plaster of Paris. Pulverize the corrosive sublimate and mix thoroughly with the plaster of Paris. Then add the chloride of lime and mix well. Pack in pasteboard boxes or in wooden casks. Keep dry.

As an antiseptic and deodoriser this powder is to be sprinkled upon the surface of the excreta, etc.

To disinfect excreta in the sick room, cover the entire surface with a thin layer of the powder—one-fourth inch in thickness—and if the material is not liquid pour on sufficient water to cover it.

*Disinfection of the Person.*—The surface of the body of a sick person, or of his attendants, when soiled with infectious discharges, should be at once cleansed with a suitable disinfecting agent. For this purpose *Standard Solution No. 3* may be used.

In diseases like small-pox and scarlet fever, in which the infectious agent is given off from the entire surface of the body, occasional ablutions with Labarraque's Solution, diluted with twenty parts of water, will be more suitable than the stronger solution above recommended.

In all infectious diseases the surface of the body of the dead should be thoroughly washed with one of the standard solutions above recommended, and then enveloped in a sheet saturated with the same.

*Disinfection of Clothing.*—Boiling for half an hour will destroy the vitality of all known disease germs, and there is no better way of disinfecting clothing or bedding which can be washed than to put it through the ordinary operations of the laundry. No delay should occur, however, between the time of removing soiled clothing from the person or bed of the sick and its immersion in boiling water, or in one of the following solutions; and no article should be permitted to leave the infected room until so treated.

### STANDARD SOLUTION NO. 4.

*Dissolve Corrosive Sublimate in water* in the proportion of four ounces to the gallon, and add one drachm of Permanganate of Potash to each gallon to give color to the solution.*

One fluid ounce of this standard solution to the gallon of water will make a suitable solution for the disinfection of clothing. The articles to be disinfected must be thoroughly soaked with the disinfecting solution and left in it for at least two hours, after which they may be wrung out and sent to the wash.

N. B. *Solutions of corrosive sublimate should not be placed in metal receptacles,* for the salt is decomposed and the mercury precipitated by contact with copper, lead or tin. A wooden tub or earthen crock is a suitable receptacle for such solutions.

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* Mercuric chloride (corrosive sublimate) is soluble in cold water in the proportion of one part in sixteen. Solution is greatly facilitated by heat, also by an equal quantity of hydrochlorate of ammonia.

Clothing may also be disinfected by immersion for two hours in a solution made by diluting *Standard Solution No. 1* with nine parts of water—one gallon in ten. This solution is preferable for general use, especially during the prevalence of epidemics, on account of the possibility of accidents from the poisonous nature of *Standard Solution No. 4*. When diluted as directed this solution may, however, be used without danger from poisoning through the medium of clothing immersed in it, or by absorption through the hands in washing. A poisonous dose could scarcely be swallowed by mistake, owing to the metallic taste of the solution, and the considerable quantity which would be required to produce a fatal effect—at least half a pint.

Clothing and bedding which cannot be washed may be disinfected by exposure to dry heat in a properly constructed disinfecting chamber for three or four hours. A temperature of 230° Fah. should be maintained during this time, and the clothing must be freely exposed—i. e., not folded or arranged in piles or bundles, for the penetrating power of dry heat is very slight.

The temperature above mentioned will not destroy the *spores* of bacilli—e. g., of the anthrax bacillus, but is effective for the destruction of all disease germs which do not form spores; and there is good reason to believe that this list includes small-pox, cholera, yellow fever, diphtheria, erysipelas, puerperal fever, and scarlet fever (?). Moist heat is far more effective, and it is demonstrated that ten minutes exposure to steam, at a temperature of 230° Fah., will destroy all known disease germs, including the most refractory spores.

In the absence of a suitable disinfecting chamber, it will be necessary to burn infected clothing and bedding, the value of which would be destroyed by immersion in boiling water, or in one of the disinfecting solutions recommended.

*Disinfection of the sick room.*—In the sick room no disinfectant can take the place of free ventilation and cleanliness. It is an axiom in sanitary science that *it is impracticable to disinfect an occupied apartment;* for the reason that disease germs are not destroyed by the presence in the atmosphere of any known disinfectant in respirable quantity. Bad odors may be neutralized, but this does not constitute disinfection in the senses in which the term is here used. These bad odors are, for the most part, an indication of want of cleanliness, or of proper ventilation; and it is better to turn contaminated air out of the window, or up the chimney, than to attempt to purify it by the use of volatile chemical agents, such as carbolic acid, chlorine, etc., which are more or less offensive to the sick, and are useless so far as disinfection—properly so-called—is concerned.

*When an apartment which has been occupied by a person sick with an infectious disease is vacated, it should be disinfected.*

The object of disinfection in the sick room is, mainly, the destruction of infectious material attached to surfaces, or deposited as dust upon window-ledges, in crevices, etc. If the room has been properly cleansed and ventilated while still occupied by the sick person, and especially if it was stripped of carpets and unnecessary furniture at the outset of his attack, the difficulties of disinfection will be greatly reduced.

All surfaces should be thoroughly washed with a solution of corrosive sublimate of the strength of one part in 1,000 parts of water, which may be conveniently made by adding four ounces of *Standard Solution No. 4* to the gallon, or one pint to four gallons of water. The walls and ceiling, if plastered, should be whitewashed with a lime wash containing the same proportion of corrosive sublimate, or they may be brushed over with the aqueous solution. Especial care must be taken to wash away all dust from window-ledges and other places where it may have settled, and to thoroughly cleanse crevices and out-of-the-way places. After this application of the disinfecting solution, and an interval of twenty-four hours or longer for free ventilation, the floors and wood-work should be well scrubbed with soap and hot water, and this should be followed by a second more prolonged exposure to fresh air, admitted through open doors and windows.

Many sanitary authorities consider it necessary to insist on fumigation with sulphurous acid gas—produced by combustion of sulphur—for the disinfection of the sick room. As an additional precaution this is to be recommended, especially for rooms which have been occupied by patients with small-pox, scarlet fever, diphtheria, typhus fever and yellow fever. It should precede the washing of surfaces and free ventilation above recommended. But fumigation with sulphurous acid gas alone, as commonly practiced, cannot be wholly relied upon for the disinfection of the sick room and its contents, including bedding, infected clothing, etc., as is popularly believed. And a misplaced confidence in this mode of disinfection is likely to lead to a neglect of the more important measures which have been recommended. In the absence of moisture the disinfecting power of sulphurous acid gas is very limited, and under no circumstances can it be relied upon for the destruction of spores. But exposure to this agent in sufficient quantity, and for a considerable time, especially in the presence of moisture, is destructive of disease germs, in the absence of spores. It is essential, however, that the germs to be destroyed shall be freely exposed to the disinfecting agent, which has but slight penetrating power.

*To secure any results of value it will be necessary to close the apartment to be disinfected as completely as possible by stopping all apertures through which the gas might escape, and to burn not less than three pounds of sulphur for each thousand cubic feet of air-space in the room.* To secure complete combustion of the sulphur it should be placed, in powder or in small fragments, in a shallow iron pan, which should be set upon a couple of bricks in a tub partly filled with water, to guard against fire. The sulphur should be thoroughly moistened with alcohol before igniting it

*Disinfection of privy vaults, cesspools, etc.*—When the excreta—not previously disinfected—of patients with cholera or typhoid fever, have been thrown into a privy-vault, this is infected, and disinfection should be resorted to as soon as the fact is discovered, or whenever there is reasonable suspicion that such is the case. It will be advisable to take the same precautions with reference to privy-vaults into which the excreta of yellow fever patients have been thrown, although we do not definitely know that this is infectious material. Disinfection may be accomplished either with corrosive sublimate or with chloride of lime. The amount used must be proportioned to the amount of material to be disinfected.

*Use one pound of Corrosive Sublimate for every five hundred pounds—estimated—of fecal matter contained in the vault, or one pound of Chloride of Lime to every thirty pounds.*

*Standard Solution No. 4*, diluted with three parts of water, may be used. It should be applied—the diluted solution—in the proportion of one gallon to every four gallons—estimated—of the contents of the vault.

If chloride of lime is to be used, one gallon of *Standard Solution No. 1* will be required for every gallon—estimated—of the material to be disinfected.

All exposed portions of the vault, and the wood-work above it, should be thoroughly washed down with the disinfecting solution.

To keep a privy-vault disinfected during the progress of an epidemic, sprinkle chloride of lime freely over the surface of its contents daily. Or, if the odor of chlorine is objectionable, apply daily four or five gallons of *Standard Solution No. 2*, which should be made up by the barrel, and kept in a convenient location, for this purpose.

*Disinfection of ingesta.*—It is well established that cholera and typhoid fever, are very frequently, and perhaps usually, transmitted through the medium of infected water or articles of food, and especially milk. Fortunately we have a simple means at hand for disinfecting such infected fluids. This consists in the application of heat. *The boiling temperature maintained for half an hour kills all known disease germs.* So far as the germs of cholera, yellow fever, and diphtheria are concerned, there is good reason to believe that a temperature considerably below the boiling point of water will destroy them. But in order to keep on the safe side it is best not to trust anything short of the boiling point (212° F.) when the object in view is to disinfect food or drink which is open to the suspicion of containing the germs of any infectious disease.

During the prevalence of an epidemic of cholera it is well to boil all water for drinking purposes. After boiling, the water may be filtered, if necessary to remove sediment, and then cooled with *pure* ice if desired.

A sheet of filtering paper, such as druggists use, and a glass or tin funnel, furnishes the best means for filtering water on a small scale for drinking purposes. A fresh sheet of paper is to be used each day.

## RECAPITULATION.

To the preceding directions may be added the following suggestions and conclusions:

### AGENTS THAT MAY BE USED FOR DISINFECTION.

Heat.—Destruction by burning.
" Steam under pressure (230° Fah.) ten minutes.
" Boiling in water not less than one-half hour.
" Dry heat, oven or furnace, (230° Fah.) two hours.
Chloride of Lime, 1 part to from 4 to 9 of Plaster of Paris.
" " " Solution 1 oz. to quart of water.
Corrosive Sublimate, Solution, 1 drachm to the gallon of water. For very strong, 4 oz. to the gallon. See Standard Solutions Nos. 2 and 4 and remarks.

### STANDARD SOLUTION NO. 5,

(*Or Blue Solution.*)

*Dissolve four ounces of Corrosive Sublimate and one pound of Blue Vitrol in a gallon of hot water.*

One-half pint of this solution to one gallon of water when used for disinfecting excreta in the sick room. Preferable in some cases to chlorides of lime or soda because odorless.

Chloride of Zinc, Sol. 5 to 10 per cent. More costly and no more valuable than chloride of lime. Has no odor.

### FOR CLOTHING, BEDDING, &C.

(*a*) Soiled underclothing, bed linen, &c., (1) destruction by fire, if of little value; (2) boiling for at least half an hour; (3) immersion in a solution of mercuric chloride (corrosive sublimate) of the strength of 1: 2,000 (1 drachm to 1 gallon of water) for four hours; (4) immersion in a 2 per cent. solution of carbolic acid for four hours.

(*b*) Outer garments of wool or silk, and similar articles, which would be injured by immersion in boiling water or in a disinfecting solution, (1) exposure to dry heat at a temperature of 110° C.( 230° Fah.) for 2 hours; (2) fumigation with sulphurous-acid gas † for at least twelve hours, the clothing being freely exposed.

(*c*) Mattresses and blankets soiled by the discharges of the sick: (1) Destruction by fire; (2) exposure to superheated steam—25 pounds pressure—for one hour (mattresses to have the cover removed or freely opened); (3) immersion in boiling water for one hour; (4) immersion in the blue solution (mercuric chloride and sulphate of copper) two fluid ounces to the gallon of water.

*Furniture and articles of wood, leather and porcelain.**—Washing, several times repeated, with: (1) Solution of mercuric chloride, 1: 1,000 (the blue solution, 4 ounces to the gallon of water, may be used); (2) solution of chloride of lime, 1 per cent.; (3) solution of carbolic acid, 2 per cent.

*For the person.*—The hands and general surface of the body of attendants, of the sick, and of convalescents at the time of their discharge: (1) Solution of chlorinated soda diluted with nine parts of water (1: 10); (2) carbolic acid, 2 per cent. solution; (3) mercuric chloride, 1: 1,000 (1 drachm to 2 gallons of water)—recommended only for the hands, or for washing away infectious material from a limited area, not as a bath for the entire surface of the body.

*For the dead.*—Envelope the body in a sheet thoroughly saturated with: (1) Chloride of lime in solution, 4 per cent.; (2) mercuric chloride in solution, 1:500 (1 drachm to 1 quart of water); (3) carbolic acid in solution, 5 per cent.

*For the sick room and hospital wards.*—(*a*) While occupied, wash all surfaces with: (1) Mercuric chloride in solution, 1: 1,000 (the blue solution containing sulphate of copper may be used); (2) chloride of lime in solution, 1 per cent.; (3) carbolic acid in solution, 2 per cent.

---

* For metalic utensils use Standard Solution No. 3.

† Fumes or vapor of burning sulphur.

(*b*) When vacated: Fumigate with sulphur dioxide* for 12 hours, burning 3 pounds of sulphur for every 1,000 cubic feet of air space in the room; then wash all surfaces with one of the above mentioned disinfecting solutions, and afterward with soap and hot water; finally, throw open doors and windows and ventilate freely.

References in regard to disinfection, may also be made to the First Annual Report of the Rhode Island State Board of Health, 1878, pages 36, 41–43, and the Seventh Annual Report, 1884, pages 257–8.

In recapitulation of the duties of health officers, it may be stated that he is expected:

I. To determine what shall be considered nuisances prejudicial to health, to abate the same or report to the town council for orders of abatement.

II. To be diligent in endeavoring to ascertain the sale, or exposure for sale, of meats or vegetables of any kind for food which are unfit and unsafe to be eaten, and to enforce the law in relation to the same.

III. To keep informed of, and to endeavor to ascertain, the cause of any outbreak of epidemic disease occurring in human beings or among domestic animals, and to give notice of the same to the town council and to the Secretary of the State Board of Health.

IV. To investigate the condition of buildings in relation to means of escape in case of fire, and to report such as are unsafe.

V. To give notice to parties liable to suffer in health from well water, taken from wells in the near vicinity of cesspools and privies without water-tight bottoms, and near other accummulations of filth.

VI. To be vigilant in regard to violations of the law in the sale of adulterated articles which are used for food or drink, and in the preparations of food and drink, and which are unwholesome and liable to cause sickness. Adulterated or watered milk should especially receive his attention.

VII. To act promptly in cases of emergency in accordance with Section 6, of chapter 495 of the Public Laws, especially upon the occurrence in his jurisdiction, of cases of small pox, epidemic cholera, or yellow fever, and also to give notice of the same to the State Board of Health.

---

* Fumes or vapor of burning sulphur.

The circumstances and suggestions enumerated above, in connection with which and with others which may be suggested to health officers from time to time, and which may come within their legitimate jurisdiction, will show how almost indispensably useful in every community an efficient health officer can be. And the fact of the presence in any community of a live and intelligent officer of health, active in all its varied directions of service, vigilant and resolute in the full performance of his duties, will of itself be a power for good, in the increased sanitation of such localities by voluntary action on the part of the citizens.

By his activity, public attention will be called to the needs of sanitary work for the prevention of disease; and the knowledge that over and beyond his vigilance and advice, is the strong arm of the law which he can wield, will of itself be such a potent factor in the voluntary accomplishment of needed work, as to render unnecessary, in a large measure, the assistance of law.

The above suggestions are respectfully presented by the Secretary to the health officers of Rhode Island, with the hope and belief that they will receive attentive consideration, and that the duties appertaining to their official position will be discharged with commendable fidelity as occasions occur.

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| Ireland. | Vital Statistics, Report of Registrar General | 1884 |
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Sup

# THIRTY-SECOND REPORT

UPON THE

# Births, Marriages and Deaths,

IN THE

# STATE OF RHODE ISLAND,

FOR THE

*YEAR ENDING DECEMBER 31, 1884.*

PREPARED BY

CHARLES H. FISHER, M. D.,
STATE REGISTRAR OF VITAL STATISTICS; SECRETARY OF THE STATE BOARD OF HEALTH.

PROVIDENCE:
E. L. FREEMAN & SON, PRINTERS TO THE STATE.
1885.

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# State of Rhode Island and Providence Plantations.

Office of the State Registrar of Vital Statistics,
Providence, December, 1885.

*To the Honorable the General Assembly:*

The Thirty-Second Annual Report upon the Births, Marriages and Deaths in Rhode Island, is herewith respectfully submitted. The statistics presented are for the year ending December 31, 1884.

The usual Tables given in the Reports of previous years are included, with additional items, summaries and diagrams, as occasion required in further elucidation of some point or subject considered, or in illustration of facts presented, or statements made.

That the returns of deaths in the different towns of the State have acquired more completeness in the statement of all facts relating to the deaths, as required by law, may be shown by referring to the number of deaths returned with "CAUSE *unknown*." In 1884 the number of deaths returned with cause unknown was 42. The smallest previous number on record was 186, in 1883. All other facts have had more completeness than that of cause, indeed all others have had almost absolutely full returns.

It may, therefore, be repeated that there is a steady improvement in a large majority of the towns in the promptness and completeness of the returns of death, and in the collection of the returns of births.

A considerable number of towns have passed ordinances requiring the observance of the Statute in relation to making a return to the town clerks, of every death, *before the burial or removal* from the town of the body of the decedent, with a *specific minimum penalty for violation* of the same.

The following draft of an ordinance, continued from previous reports, has been furnished to several towns, and which may be adopted by other towns, or at least serve to suggest other forms which may seem to more fully accomplish the desired purposes:

"It is ordained by the town council of the town of            as follows:

SECTION 1. Whenever any death shall occur in the town of            it shall be the duty of the *undertaker*, or the *person who has charge* of the burial or removal of the body of the decedent, to obtain, BEFORE BURIAL OR REMOVAL of same, the physician's certificate (if a physician was in attendance) of the name, date and *cause* of death ; and said physician shall exercise due courtesy and diligence in furnishing said certificate ; and if no physician was in attendance, or could be reached only with difficulty, then to obtain from such sources as shall seem most reliable the cause of death, and with the same all the facts required by law in the Public Statutes (Chapter 85, Section 3), as shown in the blank returns of death, and make or present the said returns to the town clerk of the said town.

SEC. 2. It shall be the duty of the town clerk, upon the presentation of a return of death in accordance with law, and to his satisfaction, to issue to said undertaker or other person a permit or certificate of permission to bury, entomb, or remove the body of said deceased person without the limits of the town."

SEC. 3. Any person engaged or concerned in the burial, entombment or removal from the town of the body of a deceased person without a permit, or *knowingly* violating any of the provisions of the preceding section, shall be fined not less than five dollars, nor more than twenty dollars.

SEC. 4. This ordinance shall go into effect on the first day of 188 ."

The State Registrar will furnish large posters containing the above with notice, to any town adopting the ordinance, so that the provisions of the ordinance may be known to all the citizens of the town.

Respectfully,

CHAS. H. FISHER,

*State Registrar.*

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# REPORT UPON THE REGISTRATION

OF

# BIRTHS, MARRIAGES AND DEATHS

IN

# RHODE ISLAND,

FOR THE

YEAR ENDING DECEMBER 31, 1884.

AND

FOR VARIOUS PERIODS FROM 1853 TO 1884 INCLUSIVE.

# TABLE 1.

# GENERAL ABSTRACT OF BIRTHS, MARRIAGES AND DEATHS,

## IN THE STATE OF RHODE ISLAND DURING THE YEAR

## 1884.

| TOWNS AND DIVISIONS OF THE STATE. | Population, 1885. | BIRTHS, 1884. | | | | | | | MARRIAGES, 1884. | | | | | DEATHS, 1884. | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Whole Number. | SEX. | | PARENTAGE. | | | | Whole Number. | NATIVITY. | | | | Whole Number. | SEX. | | PARENTAGE. | | Ages Given. | | Aggregate Age in yrs. | | Average Age in years. | | Aggregate Age in years of all. | Average Age in years of all. |
| | | | Males. | Females. | American. | Foreign. | Am. Father. For. Mother. | For. Father. Am. Mother. | | American. | Foreign. | Am. Groom. For. Bride. | For. Groom. Am. Bride. | | Males. | Females. | American. | Foreign. | Males. | Females. | Males. | Females. | Males. | Females. | | |
| Barrington | 1,394 | 20 | 12 | 8 | 12 | 5 | 1 | 2 | 11 | 7 | 1 | 2 | 1 | 16 | 10 | 6 | 12 | 4 | 10 | 6 | 511 | 191 | 51.10 | 31.83 | 702 | 43.87 |
| Bristol | 5,737 | 131 | 69 | 62 | 59 | 49 | 12 | 11 | 33 | 20 | 7 | 4 | 2 | 113 | 56 | 57 | 75 | 38 | 56 | 57 | 1,779 | 2,709 | 31.60 | 47.52 | 4,478 | 39.56 |
| Warren | 4,205 | 108 | 52 | 56 | 43 | 48 | 11 | 6 | 35 | 18 | 11 | 3 | 3 | 72 | 31 | 41 | 28 | 44 | 31 | 41 | 950 | 1,430 | 30 64 | 35.00 | 2,380 | 33.05 |
| BRISTOL COUNTY | 11,336 | 259 | 133 | 126 | 114 | 102 | 24 | 19 | 79 | 45 | 19 | 9 | 6 | 201 | 97 | 104 | 115 | 86 | 97 | 104 | 3,240 | 4,330 | 33.40 | 42 02 | 7,560 | 37.62 |
| Coventry | 4,810 | 95 | 46 | 49 | 41 | 43 | 6 | 5 | 19 | 15 | 1 | 2 | 1 | 82 | 39 | 43 | 69 | 13 | 36 | 42 | 1,383 | 1,977 | 38.70 | 46.00 | 3,360 | 41.80 |
| East Greenwich | 2,658 | 56 | 23 | 33 | 32 | 15 | 5 | 4 | 29 | 15 | 6 | 4 | 4 | 39 | 21 | 18 | 27 | 12 | 21 | 16 | 826 | 497 | 39 33 | 31.06 | 1,323 | 36.03 |
| West Greenwich | 863 | 18 | 11 | 7 | 14 | 3 | ... | 1 | 4 | 4 | ..... | .... | .... | 18 | 8 | 10 | 18 | ...... | 8 | 10 | 431 | 313 | 53.75 | 31.30 | 744 | 41 33 |
| Warwick | 13,284 | 335 | 186 | 149 | 118 | 163 | 17 | 37 | 108 | 58 | 31 | 5 | 14 | 136 | 65 | 71 | 81 | 55 | 64 | 71 | 2,569 | 2,512 | 39.52 | 35.38 | 5,081 | 37.36 |
| KENT COUNTY | 21,615 | 504 | 266 | 238 | 205 | 224 | 28 | 47 | 160 | 92 | 38 | 11 | 19 | 275 | 133 | 142 | 195 | 80 | 129 | 139 | 5,209 | 5,299 | 40.38 | 38.12 | 10,508 | 39.21 |
| Jamestown | 486 | 10 | 6 | 4 | 10 | ..... | .... | .... | 1 | 1 | ..... | .... | .... | 10 | 7 | 3 | 9 | 1 | 7 | 3 | 358 | 77 | 51.14 | 25 33 | 435 | 43.50 |
| Little Compton | 1,057 | 9 | 4 | 5 | 7 | ..... | 2 | .... | 11 | 10 | .... | 1 | ... | 16 | 3 | 13 | 15 | 1 | 3 | 13 | 154 | 753 | 51 33 | 58.00 | 907 | 56.68 |
| Middletown | 1,166 | 33 | 18 | 15 | 28 | 4 | .... | 1 | 2 | 2 | ..... | .... | .... | 14 | 6 | 8 | 13 | 1 | 6 | 8 | 341 | 296 | 56.83 | 37 00 | 637 | 45.50 |
| New Shoreham | 1,267 | 31 | 14 | 17 | 30 | ..... | 1 | ... | 12 | 12 | ..... | .... | .... | 21 | 14 | 7 | 21 | ...... | 14 | 7 | 593 | 273 | 42 35 | 39 00 | 866 | 41.23 |
| Portsmouth | 2,003 | 29 | 16 | 13 | 17 | 8 | 1 | 3 | 5 | 4 | ..... | .... | 1 | 29 | 19 | 10 | 23 | 6 | 19 | 10 | 1,131 | 593 | 59.52 | 59.30 | 1,724 | 59.44 |
| Tiverton | 2,702 | 53 | 26 | 27 | 28 | 19 | 4 | 2 | 23 | 23 | ..... | .... | ... | 44 | 20 | 24 | 28 | 16 | 20 | 24 | 727 | 1,202 | 36.35 | 50.08 | 1,929 | 43 84 |
| TOWNS, NEWPORT CO. | 8,681 | 165 | 84 | 81 | 120 | 31 | 8 | 6 | 54 | 52 | ..... | 1 | 1 | 134 | 69 | 65 | 109 | 25 | 69 | 65 | 3,304 | 3,204 | 47.88 | 49 30 | 6,498 | 48 50 |
| NEWPORT CITY | 19,552 | 570 | 270 | 300 | 229 | 240 | 57 | 44 | 134 | 78 | 34 | 11 | 11 | 274 | 114 | 160 | 160 | 114 | 114 | 160 | 3,504 | 6,400 | 30.73 | 40.00 | 9,904 | 37.24 |

| TOWNS AND DIVISIONS OF THE STATE. | Population, 1885. | BIRTHS, 1884 | | | | | | | MARRIAGES, 1884. | | | | | DEATHS, 1884. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Whole Number. | SEX. | | PARENTAGE. | | | | Whole Number. | NATIVITY. | | | | Whole Number. | SEX. | | PARENTAGE. | | Ages Given. | | Aggregate Age in yrs. | | Average Age in years. | | Aggregate Age in years of all. | Average Age in years of all. |
| | | | Males. | Females. | American. | Foreign. | Am. Father. For. Mother. | For Father. Am. Mother. | | American. | Foreign. | Am. Groom. For. Bride. | For. Groom. Am. Bride. | | Males. | Females. | American. | Foreign. | Males. | Females. | Males. | Females. | Males. | Females. | | |
| Burrillville | 5,124 | 115 | 60 | 55 | 33 | 50 | 12 | 20 | 30 | 23 | 13 | 2 | 2 | 85 | 40 | 45 | 34 | 51 | 40 | 45 | 1,464 | 1,612 | 36.60 | 35 82 | 3,076 | 36 20 |
| Cranston | 6,109 | 134 | 72 | 62 | 74 | 43 | 9 | 8 | 19 | 13 | 3 | 1 | 2 | 109 | 57 | 52 | 62 | 47 | 56 | 50 | 2,280 | 1,879 | 40 71 | 37 58 | 4,159 | 39.23 |
| State Inst's, Cranston | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 95 | 49 | 46 | 38 | 57 | 40 | 40 | 1,802 | 1,926 | 45.05 | 48.15 | 3,728 | 46.60 |
| Cumberland | 7,167 | 174 | 90 | 84 | 52 | 89 | 10 | 23 | 62 | 21 | 22 | 10 | 9 | 158 | 81 | 77 | 44 | 114 | 81 | 77 | 2,359 | 2,245 | 29.02 | 29.15 | 4,604 | 29.08 |
| East Providence | 6,809 | 154 | 74 | 80 | 74 | 47 | 20 | 13 | 45 | 35 | 3 | 4 | 3 | 105 | 51 | 54 | 64 | 41 | 51 | 54 | 1,648 | 1,762 | 32.81 | 32 63 | 3,410 | 32.70 |
| Foster | 1,397 | 17 | 11 | 6 | 16 | .... | .... | 1 | 13 | 13 | .... | .... | .... | 24 | 18 | 6 | 24 | .... | 18 | 6 | 1,093 | 281 | 60.72 | 46.82 | 1,374 | 57.25 |
| Gloucester | 1,922 | 39 | 20 | 19 | 24 | 14 | 1 | .... | 20 | 19 | .... | 1 | .... | 31 | 16 | 15 | 24 | 7 | 16 | 15 | 636 | 923 | 39.75 | 61.53 | 1,559 | 50.30 |
| Johnston | 7,273 | 170 | 86 | 84 | 91 | 53 | 9 | 17 | 26 | 15 | 2 | 5 | 4 | 83 | 38 | 45 | 42 | 41 | 36 | 45 | 943 | 1,320 | 26.20 | 29 33 | 2,263 | 27.60 |
| Lincoln | 17,269 | 401 | 196 | 205 | 96 | 249 | 25 | 31 | 160 | 48 | 74 | 26 | 12 | 283 | 134 | 149 | 50 | 233 | 130 | 148 | 2,904 | 3,944 | 22.34 | 26 64 | 6,848 | 24.63 |
| North Providence | 1,478 | 24 | 15 | 9 | 13 | 9 | 2 | .... | 3 | 3 | .... | .... | .... | 16 | 5 | 11 | 9 | 7 | 5 | 11 | 196 | 473 | 39 20 | 43.00 | 669 | 41.81 |
| North Smithfield | 3,088 | 74 | 37 | 37 | 27 | 38 | 3 | 6 | 22 | 6 | 12 | 3 | 1 | 36 | 15 | 21 | 15 | 21 | 15 | 21 | 384 | 843 | 25.60 | 40.14 | 1,227 | 34 08 |
| Pawtucket | 22,894 | 557 | 290 | 267 | 224 | 208 | 66 | 59 | 197 | 95 | 55 | 24 | 23 | 353 | 174 | 179 | 130 | 223 | 172 | 178 | 5,108 | 6,069 | 29.70 | 34.10 | 11,177 | 31.93 |
| Scituate | 3,607 | 69 | 30 | 39 | 54 | 11 | 3 | 1 | 47 | 43 | 2 | 1 | 1 | 58 | 24 | 34 | 56 | 2 | 24 | 34 | 1,123 | 1,479 | 46 00 | 43.50 | 2,602 | 44.86 |
| Smithfield | 2,338 | 62 | 38 | 24 | 24 | 27 | 5 | 6 | 14 | 10 | 1 | 1 | 2 | 24 | 12 | 12 | 15 | 9 | 12 | 12 | 500 | 552 | 41.66 | 46 00 | 1,052 | 43.83 |
| Woonsocket | 16,145 | 447 | 215 | 232 | 90 | 295 | 28 | 34 | 157 | 50 | 67 | 18 | 22 | 282 | 133 | 149 | 77 | 205 | 133 | 148 | 3,370 | 4,598 | 25.34 | 31.07 | 7,968 | 28.35 |
| Providence County. | 102,620 | 2,437 | 1,234 | 1,203 | 892 | 1,133 | 193 | 219 | 815 | 384 | 254 | 96 | 81 | 1,742 | 847 | 895 | 684 | 1,058 | 829 | 884 | 25,810 | 29,900 | 31.13 | 33.83 | 55,710 | 32 52 |
| Providence City | 117,832 | 2,956 | 1,520 | 1,436 | 1,212 | 1,176 | 240 | 328 | 1,144 | 607 | 315 | 122 | 100 | 2,233 | 1,084 | 1,149 | 992 | 1,241 | 1,084 | 1,149 | 32,346 | 38,024 | 29.81 | 33 09 | 70,370 | 31.51 |
| Charlestown | 1,042 | 25 | 16 | 9 | 18 | 4 | 1 | 2 | 12 | 12 | .... | .... | .... | 16 | 9 | 7 | 16 | ...... | 9 | 7 | 367 | 167 | 40.78 | 23 86 | 534 | 33.37 |
| Exeter | 1,083 | 20 | 9 | 11 | 20 | ..... | .... | .... | 11 | 11 | .... | .... | .... | 18 | 13 | 5 | 18 | ...... | 13 | 5 | 688 | 231 | 52.92 | 48 00 | 919 | 51.05 |
| Hopkinton | 2,796 | 52 | 25 | 27 | 45 | 1 | 3 | 3 | 29 | 25 | 2 | 1 | 1 | 24 | 8 | 16 | 23 | 1 | 8 | 16 | 530 | 648 | 66.25 | 40 50 | 1,178 | 49 08 |
| North Kingstown | 3,869 | 80 | 36 | 44 | 60 | 9 | 5 | 6 | 23 | 21 | ..... | 1 | 1 | 50 | 24 | 26 | 44 | 6 | 21 | 26 | 1,075 | 1,277 | 44.79 | 49.11 | 2,352 | 47.05 |
| South Kingstown | 5,516 | 73 | 39 | 34 | 59 | 8 | 4 | 2 | 10 | 8 | ..... | 2 | .... | 52 | 21 | 31 | 44 | 8 | 21 | 31 | 1,074 | 1,605 | 51.14 | 51 77 | 2,679 | 51 52 |
| Richmond | 1,744 | 27 | 12 | 15 | 17 | 7 | .... | 3 | 39 | 33 | 3 | 1 | 2 | 16 | 9 | 7 | 12 | 4 | 9 | 7 | 341 | 170 | 37 88 | 24 18 | 511 | 32 00 |
| Westerly | 6,314 | 137 | 69 | 68 | 73 | 52 | 4 | 8 | 48 | 42 | 3 | 2 | 1 | 106 | 58 | 48 | 73 | 33 | 58 | 47 | 2,092 | 1,544 | 36 07 | 32.85 | 3,636 | 34.63 |
| Washington Co. | 22,364 | 414 | 206 | 208 | 292 | 81 | 17 | 24 | 172 | 152 | 8 | 7 | 5 | 282 | 142 | 140 | 230 | 52 | 142 | 139 | 6,167 | 5,572 | 43.43 | 40.08 | 11,739 | 42.13 |
| Counties. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bristol | 11,336 | 259 | 133 | 126 | 114 | 102 | 24 | 19 | 79 | 45 | 19 | 9 | 6 | 201 | 97 | 104 | 115 | 86 | 97 | 104 | 3,240 | 4.330 | 33.40 | 42 02 | 7,560 | 37.62 |
| Kent | 21,615 | 504 | 266 | 238 | 205 | 224 | 28 | 47 | 160 | 92 | 38 | 11 | 19 | 275 | 133 | 142 | 195 | 80 | 129 | 139 | 5,209 | 5,299 | 40.38 | 38 12 | 10,508 | 39 21 |
| Newport | 28,233 | 735 | 354 | 381 | 349 | 271 | 65 | 50 | 188 | 120 | 34 | 12 | 12 | 408 | 183 | 225 | 269 | 139 | 183 | 225 | 6.808 | 9,604 | 37 20 | 42.68 | 16,112 | 40 22 |
| Providence | 220,452 | 5,393 | 2,754 | 2,639 | 2,104 | 2,309 | 433 | 547 | 1,959 | 991 | 569 | 218 | 181 | 3,975 | 1,931 | 2,044 | 1,676 | 2,299 | 1,913 | 2,033 | 58,156 | 67,924 | 30 40 | 33.41 | 126,080 | 31.95 |
| Washington | 22,364 | 414 | 206 | 208 | 292 | 81 | 17 | 24 | 172 | 152 | 8 | 7 | 5 | 282 | 142 | 140 | 230 | 52 | 142 | 139 | 6,167 | 5,572 | 43.43 | 40.08 | 11,749 | 42 13 |
| Whole State | 304,000 | 7,305 | 3,713 | 3,592 | 3,064 | 2,987 | 567 | 687 | 2,558 | 1,410 | 668 | 257 | 223 | 5,141 | 2,486 | 2.655 | 2,485 | 2.656 | 2,464 | 2,640 | 79,580 | 92,729 | 32.29 | 35.12 | 172,309 | 33.76 |

## TABLE II.—BIRTHS, 1884.

*Arranged by Months, Sexes and Divisions of the State.*

| MONTHS. | SEX. | Whole State. | DIVISIONS OF THE STATE. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Bristol County. | Kent County. | Newport County. | Newport City. | Providence County. | Providence City. | Washington County. |
| January.... | Males.... | 260 | 5 | 17 | 4 | 25 | 82 | 110 | 17 |
| | Females.. | 302 | 14 | 9 | 6 | 30 | 99 | 125 | 19 |
| | Total.... | 562 | 19 | 26 | 10 | 55 | 181 | 235 | 36 |
| February... | Males.... | 274 | 10 | 23 | 7 | 22 | 88 | 106 | 18 |
| | Females.. | 299 | 11 | 19 | 8 | 16 | 89 | 134 | 22 |
| | Total.... | 573 | 21 | 42 | 15 | 38 | 177 | 240 | 40 |
| March...... | Males.... | 324 | 16 | 24 | 7 | 21 | 103 | 138 | 15 |
| | Females.. | 275 | 9 | 26 | 5 | 16 | 105 | 98 | 16 |
| | Total.... | 599 | 25 | 50 | 12 | 37 | 208 | 236 | 31 |
| April....... | Males.... | 283 | 12 | 17 | 5 | 17 | 97 | 117 | 18 |
| | Females.. | 264 | 9 | 17 | 4 | 25 | 78 | 115 | 16 |
| | Total.... | 547 | 21 | 34 | 9 | 42 | 175 | 232 | 34 |
| May........ | Males.... | 291 | 11 | 21 | 7 | 22 | 93 | 118 | 19 |
| | Females.. | 265 | 14 | 19 | 5 | 25 | 85 | 105 | 12 |
| | Total.... | 556 | 25 | 40 | 12 | 47 | 178 | 223 | 31 |
| June....... | Males.... | 351 | 9 | 26 | 11 | 29 | 113 | 146 | 17 |
| | Females.. | 301 | 13 | 21 | 5 | 25 | 107 | 110 | 20 |
| | Total.... | 652 | 22 | 47 | 16 | 54 | 220 | 256 | 37 |
| July....... | Males.... | 306 | 9 | 23 | 7 | 19 | 111 | 124 | 13 |
| | Females.. | 299 | 9 | 23 | 10 | 14 | 109 | 119 | 15 |
| | Total.... | 605 | 18 | 46 | 17 | 33 | 220 | 243 | 28 |

### TABLE II.—BIRTHS, 1884.—Continued.

| MONTHS. | SEX. | Whole State. | DIVISIONS OF THE STATE. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Bristol County. | Kent County. | Newport County. | Newport City. | Providence County. | Providence City. | Washington County. |
| August..... | Males.... | 321 | 8 | 24 | 6 | 21 | 94 | 148 | 20 |
| | Females.. | 301 | 8 | 32 | 9 | 23 | 103 | 110 | 16 |
| | Total.... | 622 | 16 | 56 | 15 | 44 | 197 | 258 | 36 |
| September.. | Males.... | 328 | 12 | 34 | 7 | 26 | 108 | 124 | 17 |
| | Females.. | 313 | 5 | 21 | 12 | 27 | 107 | 127 | 14 |
| | Total.... | 641 | 17 | 55 | 19 | 53 | 215 | 251 | 31 |
| October.... | Males.... | 298 | 14 | 13 | 9 | 21 | 101 | 126 | 14 |
| | Females.. | 304 | 10 | 15 | 4 | 29 | 115 | 114 | 17 |
| | Total.... | 602 | 24 | 28 | 13 | 50 | 216 | 240 | 31 |
| November.. | Males.... | 338 | 14 | 20 | 4 | 22 | 123 | 137 | 18 |
| | Females.. | 317 | 15 | 17 | 8 | 32 | 99 | 129 | 17 |
| | Total.... | 655 | 29 | 37 | 12 | 54 | 222 | 266 | 35 |
| December.. | Males.... | 339 | 13 | 24 | 10 | 25 | 121 | 126 | 20 |
| | Females.. | 352 | 9 | 19 | 5 | 38 | 107 | 150 | 24 |
| | Total.... | 691 | 22 | 43 | 15 | 63 | 228 | 276 | 44 |
| Whole Year. | Males.... | 3,713 | 133 | 266 | 84 | 270 | 1,234 | 1,520 | 206 |
| | Females.. | 3,592 | 126 | 238 | 81 | 300 | 1,203 | 1,436 | 208 |
| | Total.... | 7,305 | 259 | 504 | 165 | 570 | 2,437 | 2,956 | 414 |

# TABLE III.—PLURALITY BIRTHS, 1884.

## ARRANGED BY MONTHS AND DIVISIONS OF THE STATE, AND SHOWING THE NATIVITY OF THE PARENTS.

| MONTHS. | Number of Cases. | SEX. | No. of Children. | Divisions of the State. | | | | | | | Nativity of the Parents. | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Bristol County. | Kent County. | Newport Co., Towns. | Newport City. | Providence Co., Towns. | Providence City. | Washington Co. | American. | Irish. | French. | Scotch. | Swedish. | English. | German. | British American | Brazilian. | Spanish. | Italian. | American Father. Irish Mother. | American Father. English Mother. | American Father. French Mother. | B. Am. Father. Irish Mother. | English Father. Amer. Mother. | Irish Father. Amer. Mother. | Irish Father. English Mother. | Irish Father. Welsh Mother. | Scotch Father. Amer. Mother. | Scotch Father. Irish Mother. |
| January.... | 7 | Males..... 4<br>Females ...10 | 14 | 2 | ... | ... | ... | 1 | 4 | ... | 2 | 2 | ... | ... | ... | ... | ... | 1 | ... | 1 | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| February.... | 6 | Males...... 2<br>Females ...10 | 12 | ... | ... | ... | 1 | 1 | 4 | ... | 1 | 1 | ... | 1 | 1 | ... | ... | ... | 1 | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| March ...... | 4 | Males...... 7<br>Females ... 1 | 8 | ... | ... | ... | 1 | 1 | 1 | 1 | 2 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| April ...... | 7 | Males..... 7<br>Females ... 7 | 14 | ... | ... | ... | 1 | 1 | 5 | ... | ... | 2 | ... | ... | 1 | 1 | 1 | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... |
| May........ | 7 | Males.. ... 7<br>Females ... 7 | 14 | ... | 1 | ... | 3 | 1 | 2 | ... | 3 | 2 | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... |
| June........ | 8 | Males..... 9<br>Females ... 7 | 16 | ... | 1 | ... | 1 | 1 | 5 | ... | 1 | 3 | 1 | 1 | 1 | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| July........ | 7 | Males...... 9<br>Females ... 5 | 14 | ... | ... | ... | 1 | 1 | 5 | ... | 3 | ... | 2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | 1 | ... | ... | ... |
| August..... | 6 | Males...... 8<br>Females ... 4 | 12 | ... | ... | ... | 2 | 2 | 2 | ... | 1 | 2 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | 1 |
| September.. | 6 | Males...... 7<br>Females ... 5 | 12 | ... | ... | 1 | 1 | 1 | 3 | . | 2 | 2 | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... |
| October..... | 8 | Males...... 4<br>Females ...12 | 16 | ... | ... | ... | 1 | 2 | 4 | 1 | 1 | 4 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | 1 | ... | ... | ... | ... |
| November... | 13 | Males.. ...14<br>Females ...12 | 26 | ... | ... | ... | 1 | 8 | 4 | ... | 8 | ... | 1 | 1 | 1 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... |
| December... | 12 | Males...... 9<br>Females ...15 | 24 | ... | 1 | ... | 4 | 1 | 4 | 2 | 1 | 4 | ... | 1 | ... | ... | 1 | ... | ... | ... | ... | 1 | 1 | 1 | ... | ... | 1 | ... | 1 | ... | ... |
| Whole Year. | 91 | Males......87<br>Females ...95 | 182 | 2 | 3 | 1 | 17 | 21 | 43 | 4 | 25 | 23 | 6 | 5 | 4 | 3 | 2 | 1 | 1 | 1 | 1 | 6 | 2 | 1 | 1 | 1 | 3 | 1 | 1 | 2 | 1 |

## TABLE IV.—MARRIAGES, 1884.

*Arranged by Months and Divisions of the State.*

| MONTHS. | Whole State, 1884. | DIVISIONS OF THE STATE. | | | | | | | Whole State, 1883. |
|---|---|---|---|---|---|---|---|---|---|
| | | Bristol County. | Kent County. | Newport County, Towns. | Newport City. | Providence County, Towns. | Providence City. | Washington County. | |
| January........ | 234 | 4 | 16 | 7 | 9 | 71 | 118 | 9 | 235 |
| February....... | 215 | 6 | 10 | 3 | 10 | 70 | 108 | 8 | 153 |
| March...... ... | 134 | 8 | 12 | 1 | 9 | 39 | 46 | 19 | 147 |
| First Quarter... | 583 | 18 | 38 | 11 | 28 | 180 | 272 | 36 | 535 |
| April.......... | 227 | 5 | 17 | 6 | 10 | 72 | 104 | 13 | 238 |
| May... ....... | 196 | 3 | 9 | 4 | 9 | 66 | 94 | 11 | 207 |
| June.......... | 246 | 8 | 17 | 3 | 6 | 78 | 115 | 19 | 250 |
| Second Quarter.. | 669 | 16 | 43 | 13 | 25 | 216 | 313 | 43 | 695 |
| July..... ..... | 173 | 5 | 10 | 2 | 8 | 62 | 74 | 12 | 189 |
| August......... | 178 | 11 | 10 | 3 | 10 | 50 | 81 | 13 | 182 |
| September ..... | 223 | 3 | 22 | 4 | 18 | 72 | 91 | 13 | 216 |
| Third Quarter... | 574 | 19 | 42 | 9 | 36 | 184 | 246 | 38 | 587 |
| October........ | 249 | 8 | 12 | 5 | 19 | 81 | 111 | 13 | 276 |
| November...... | 291 | 11 | 11 | 8 | 19 | 103 | 118 | 21 | 311 |
| December ..... | 192 | 7 | 14 | 8 | 7 | 51 | 84 | 21 | 207 |
| Fourth Quarter.. | 732 | 26 | 37 | 21 | 45 | 235 | 313 | 55 | 794 |
| Whole Year..... | 2,558 | 79 | 160 | 54 | 134 | 815 | 1,144 | 172 | 2,611 |

## Table V.—AGES OF PERSONS MARRIED, 1884.

| AGES OF MEN. | AGES OF WOMEN. | | | | | | | | | | | | | Whole Number of Males. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Under 20. | 20 to 25. | 25 to 30. | 30 to 35. | 35 to 40. | 40 to 45. | 45 to 50. | 50 to 55. | 55 to 60. | 60 to 65. | 65 to 70. | 70 to 75. | Not Stated. | |
| Under 20........ | 39 | 23 | 1 | 1 | .... | .. | .. | .. | .. | .. | .. | .. | .. | 64 |
| 20 to 25......... | 249 | 560 | 101 | 11 | 4 | 1 | .. | .. | .. | .. | .. | .. | .. | 926 |
| 25 to 30......... | 105 | 353 | 236 | 42 | 7 | 1 | .. | .. | .. | .. | .. | .. | .. | 744 |
| 30 to 35......... | 15 | 120 | 122 | 68 | 19 | 10 | .. | .. | .. | .. | .. | .. | .. | 354 |
| 35 to 40......... | 5 | 31 | 47 | 56 | 29 | 13 | 2 | 1 | .. | .. | .. | .. | .. | 184 |
| 40 to 45......... | 5 | 8 | 19 | 21 | 26 | 8 | 7 | .. | .. | .. | .. | .. | .. | 94 |
| 45 to 50... ..... | 1 | 3 | 10 | 11 | 17 | 13 | 9 | 2 | .. | .. | .. | .. | .. | 66 |
| 50 to 55......... | .... | 2 | 4 | 2 | 9 | 4 | 11 | 2 | .. | .. | .. | .. | .. | 34 |
| 55 to 60......... | 1 | 1 | 3 | 1 | 7 | 3 | 11 | 10 | 2 | .. | .. | .. | .. | 39 |
| 60 to 65......... | .... | .... | 1 | 2 | 3 | 4 | 6 | 4 | 3 | 1 | .. | 1 | .. | 25 |
| 65 to 70......... | .... | .... | 1 | .... | 2 | 1 | 2 | 7 | 3 | 3 | 1 | .. | .. | 20 |
| 70 to 75......... | .... | .... | .... | .... | .... | .. | .. | 2 | 1 | 1 | 1 | .. | .. | 5 |
| 75 to 80......... | .... | .... | .... | .... | .... | .. | .. | 2 | .. | .. | 1 | .. | .. | 3 |
| 80 to 85......... | .... | .... | .... | .... | .... | .. | .. | .. | .. | .. | .. | .. | .. | .... |
| Not Stated...... | .... | .... | .... | .... | .... | .. | .. | .. | .. | .. | .. | .. | .. | .... |
| Whole No. Fem.. | 420 | 1101 | 545 | 215 | 123 | 58 | 48 | 30 | 9 | 5 | 3 | 1 | .. | 2558 |

## TABLE VI.—DEATHS, 1884.

*Arranged by Months, Sexes, and Divisions of the State.*

| MONTHS. | SEX. | Whole State. | DIVISIONS OF THE STATE. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Bristol County. | Kent County. | Newport County, Towns. | Newport City. | Providence County, Towns. | Providence City. | Washington County. | State Institutions, Cranston. |
| January . . . . | Males. . . . | 185 | 7 | 3 | 6 | 9 | 64 | 78 | 13 | 5 |
| | Females. . | 193 | 10 | 8 | 7 | 10 | 55 | 90 | 9 | 4 |
| | Total. . . . | 378 | 17 | 11 | 13 | 19 | 119 | 168 | 22 | 9 |
| February. . . . | Males. . . . | 156 | 5 | 7 | 4 | 7 | 44 | 76 | 10 | 3 |
| | Females. . | 188 | 5 | 7 | 4 | 12 | 51 | 95 | 6 | 2 |
| | Total. . . . | 344 | 10 | 14 | 8 | 19 | 95 | 171 | 16 | 5 |
| March. . . . . . | Males. . . . | 190 | 11 | 11 | 8 | 11 | 58 | 75 | 11 | 5 |
| | Females. . | 199 | 5 | 10 | 3 | 13 | 68 | 85 | 10 | 5 |
| | Total. . . . | 389 | 16 | 21 | 11 | 24 | 126 | 160 | 21 | 10 |
| April. . . . . . . | Males. . . . | 201 | 11 | 9 | 5 | 7 | 69 | 88 | 10 | 2 |
| | Females. . | 215 | 10 | 12 | 4 | 12 | 72 | 94 | 10 | 1 |
| | Total. . . . | 416 | 21 | 21 | 9 | 19 | 141 | 182 | 20 | 3 |
| May. . . . . . . . | Males. . . . | 160 | 4 | 9 | 6 | 5 | 47 | 76 | 5 | 8 |
| | Females. . | 209 | 13 | 9 | 2 | 5 | 60 | 109 | 9 | 2 |
| | Total. . . . | 369 | 17 | 18 | 8 | 10 | 107 | 185 | 14 | 10 |
| June. . . . . . . | Males. . . . | 157 | 6 | 12 | 6 | 8 | 40 | 75 | 7 | 3 |
| | Females. . | 169 | 8 | 9 | 1 | 16 | 53 | 70 | 8 | 4 |
| | Total. . . . | 326 | 14 | 21 | 7 | 24 | 93 | 145 | 15 | 7 |
| July. . . . . . . . | Males. . . . | 239 | 6 | 13 | 4 | 14 | 77 | 106 | 17 | 2 |
| | Females. . | 217 | 7 | 12 | 8 | 12 | 77 | 90 | 9 | 2 |
| | Total. . . . | 456 | 13 | 25 | 12 | 26 | 154 | 196 | 26 | 4 |
| August . . . . . | Males. . . . | 272 | 8 | 17 | 7 | 15 | 82 | 120 | 18 | 5 |
| | Females. . | 270 | 9 | 13 | 6 | 15 | 91 | 105 | 23 | 8 |
| | Total. . . . | 542 | 17 | 30 | 13 | 30 | 173 | 225 | 41 | 13 |
| September . . | Males. . . . | 257 | 13 | 15 | 7 | 8 | 94 | 104 | 13 | 3 |
| | Females. . | 257 | 13 | 20 | 7 | 19 | 84 | 94 | 14 | 6 |
| | Total. . . . | 514 | 26 | 35 | 14 | 27 | 178 | 198 | 27 | 9 |
| October. . . . . | Males. . . . | 234 | 12 | 10 | 6 | 11 | 72 | 105 | 16 | 2 |
| | Females. . | 284 | 13 | 18 | 10 | 16 | 100 | 100 | 20 | 7 |
| | Total. . . . | 518 | 25 | 28 | 16 | 27 | 172 | 205 | 36 | 9 |
| November . . | Males. . . . | 205 | 8 | 18 | 2 | 10 | 68 | 86 | 3 | 5 |
| | Females. . | 227 | 6 | 13 | 6 | 14 | 61 | 117 | 8 | 2 |
| | Total. . . . | 432 | 14 | 31 | 8 | 24 | 129 | 203 | 11 | 7 |
| December. . . | Males. . . . | 230 | 6 | 9 | 8 | 9 | 83 | 95 | 14 | 6 |
| | Females. . | 227 | 5 | 11 | 7 | 16 | 71 | 100 | 14 | 3 |
| | Total. . . . | 457 | 11 | 20 | 15 | 25 | 154 | 195 | 28 | 9 |
| Whole Year. | Males. . . . | 2,486 | 97 | 133 | 69 | 114 | 798 | 1,084 | 142 | 49 |
| | Females. . | 2,655 | 104 | 142 | 65 | 160 | 849 | 1,149 | 140 | 46 |
| | Total. . . . | 5,141 | 201 | 275 | 134 | 274 | 1,647 | 2,233 | 282 | 95 |

## TABLE VII.—DEATHS, 1884.

*Exhibiting the Whole Number, the Proportion to Population, the Number of each Sex, and the Number in each Period of Life, in every Town and Division of the State.*

| TOWNS AND DIVISIONS OF THE STATE. | Population, 1885. | DEATHS. | | | | Under one year. | 1 and under 2. |
|---|---|---|---|---|---|---|---|
| | | Whole Number. | In each 1000 of Populat'n. | SEX. | Number of each Sex. | | |
| Barrington....... | 1,394 | 16 | 11.4 | Males..... | 10 | 2 | .... |
| | | | | Females... | 6 | 1 | 1 |
| Bristol.......... | 5,737 | 113 | 19.6 | Males..... | 56 | 16 | 3 |
| | | | | Females... | 57 | 9 | 4 |
| Warren.......... | 4,205 | 72 | 17.1 | Males..... | 31 | 5 | 1 |
| | | | | Females... | 41 | 12 | 2 |
| BRISTOL COUNTY . | 11,336 | 201 | 17.7 | Males..... | 97 | 23 | 4 |
| | | | | Females... | 104 | 22 | 7 |
| Coventry......... | 4,810 | 82 | 17.0 | Males..... | 39 | 8 | 1 |
| | | | | Females... | 43 | 5 | 2 |
| East Greenwich... | 2,658 | 30 | 14.6 | Males..... | 21 | 4 | 1 |
| | | | | Females... | 18 | 5 | .... |
| West Greenwich .. | 863 | 18 | 20.8 | Males..... | 8 | 1 | .... |
| | | | | Females... | 10 | 2 | .... |
| Warwick......... | 13,284 | 136 | 10.2 | Males..... | 65 | 11 | 3 |
| | | | | Females... | 71 | 10 | 1 |
| KENT COUNTY... | 21,615 | 275 | 12.7 | Males..... | 133 | 24 | 5 |
| | | | | Females... | 142 | 22 | 3 |
| Jamestown........ | 486 | 10 | 20.5 | Males..... | 7 | 1 | .... |
| | | | | Females... | 3 | 2 | .... |
| Little Compton... | 1,057 | 16 | 15.1 | Males..... | 3 | .... | .... |
| | | | | Females... | 13 | 1 | .... |
| Middletown...... | 1,166 | 14 | 12.0 | Males..... | 6 | 1 | .... |
| | | | | Females... | 8 | .... | 1 |
| New Shoreham. .. | 1,267 | 21 | 16.5 | Males..... | 14 | 2 | 1 |
| | | | | Females... | 7 | 2 | .... |
| Portsmouth...... | 2,003 | 29 | 14.4 | Males..... | 19 | 1 | .... |
| | | | | Females... | 10 | .... | .... |
| Tiverton......... | 2,702 | 44 | 16.3 | Males..... | 20 | 4 | 1 |
| | | | | Females... | 24 | 4 | .... |
| TOWNS, NEWP'T CO | 8,681 | 134 | 15.4 | Males..... | 69 | 9 | 2 |
| | | | | Females... | 65 | 9 | 1 |
| NEWPORT CITY... | 19,552 | 274 | 14.0 | Males..... | 114 | 28 | 6 |
| | | | | Females... | 160 | 26 | 10 |

## Table VII.—DEATHS, 1884.—Continued.

| 2 and under 3. | 3 and under 5. | 5 and under 10. | 10 and under 15. | 15 and under 20. | 20 and under 30. | 30 and under 40. | 40 and under 50. | 50 and under 60. | 60 and under 70. | 70 and under 80. | 80 and under 90. | 90 and over. | Age not stated. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| .... | .... | .... | .... | 1 | .... | 1 | .... | .... | 2 | 1 | 3 | .... | .... |
| .... | .... | .... | .... | 1 | 1 | .... | .... | .... | 1 | .... | 1 | .... | .... |
| 1 | .... | 2 | .... | .... | 6 | 5 | 5 | 5 | 7 | 4 | 1 | 1 | .... |
| .... | .... | 1 | ... | 1 | 6 | 4 | 1 | 3 | 7 | 10 | 9 | 2 | .... |
| 3 | 3 | 2 | .... | 1 | 3 | 1 | 2 | 1 | 1 | 5 | 3 | .... | .... |
| .... | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 8 | 1 | 1 | .... |
| 4 | 3 | 4 | .... | 2 | 9 | 7 | 7 | 6 | 10 | 10 | 7 | 1 | .... |
| .... | 2 | 2 | 1 | 3 | 9 | 6 | 3 | 6 | 11 | 18 | 11 | 3 | .... |
| | | | | | | | | | | | | | |
| 2 | .... | 3 | .... | 1 | 1 | 1 | 1 | 3 | 7 | 4 | 3 | 1 | 3 |
| 1 | .... | .... | .... | 2 | 4 | 2 | 5 | 1 | 6 | 7 | 5 | 2 | 1 |
| .... | .... | .... | .... | .... | 1 | .... | 3 | 3 | 2 | 6 | 1 | ... | .... |
| .... | 1 | .... | .... | 1 | 2 | 2 | 1 | .... | 2 | .... | 1 | 1 | 2 |
| .. . | .... | .... | 1 | .... | .... | .... | .... | 1 | 2 | 2 | 1 | .... | .... |
| 2 | .... | .... | .... | .... | 1 | 1 | 1 | 1 | .... | 1 | 1 | .... | .... |
| 2 | 2 | 1 | 3 | 3 | 4 | 2 | 1 | 7 | 8 | 8 | 8 | 1 | 1 |
| 3 | 2 | 4 | 3 | 4 | 5 | 6 | 9 | 8 | 6 | 6 | 1 | 3 | .... |
| 4 | 2 | 4 | 4 | 4 | 6 | 3 | 5 | 14 | 19 | 20 | 13 | 2 | 4 |
| 6 | 3 | 4 | 3 | 7 | 12 | 11 | 16 | 10 | 14 | 14 | 8 | 6 | 3 |
| | | | | | | | | | | | | | |
| .... | .... | .... | .... | .... | .... | .... | 2 | 1 | 2 | 1 | .... | .... | ... |
| .... | .... | ... | .... | ... | .... | .... | .... | .... | .... | 1 | .... | .... | .... |
| .... | ... | .... | .... | .... | .... | .... | 2 | .... | 1 | .... | .... | .... | .... |
| .... | .... | .... | .... | .... | 2 | .... | 1 | 1 | 1 | 2 | 4 | 1 | .... |
| .... | .... | .... | .... | .... | .... | .... | .... | 1 | 2 | 2 | .... | .... | ... |
| .... | .... | 2 | .... | 1 | .... | .... | .... | 2 | .... | 1 | 1 | .... | .... |
| .... | .... | .... | .... | 1 | 1 | 3 | .... | 1 | 1 | 2 | 1 | 1 | .... |
| .... | .... | .... | .... | .... | .... | 2 | 1 | .... | .... | 1 | 1 | .... | .... |
| .... | .... | .... | .... | 1 | 1 | 1 | 2 | 1 | 5 | 3 | 2 | 2 | .... |
| .... | 1 | .... | .... | ... | 1 | 1 | .... | 1 | 1 | 3 | 1 | 1 | .... |
| .... | .. . | 1 | 1 | 1 | 1 | 2 | .... | 2 | 5 | 1 | 1 | .... | .... |
| .... | 1 | .... | .... | .... | 3 | 2 | .... | 1 | 3 | 3 | 7 | .... | .... |
| .... | .... | 1 | 1 | 3 | 3 | 6 | 6 | 6 | 16 | 9 | 4 | 3 | .... |
| .... | 2 | 2 | .... | 1 | 6 | 5 | 2 | 5 | 5 | 11 | 14 | 2 | .... |
| | | | | | | | | | | | | | |
| .... | 5 | 5 | 1 | 3 | 13 | 8 | 11 | 10 | 5 | 11 | 8 | .... | .... |
| 4 | 5 | 4 | 3 | 4 | 9 | 9 | 13 | 13 | 18 | 24 | 15 | 3 | .... |

## Table VII.—DEATHS, 1884.—Continued.

| TOWNS AND DIVISIONS OF THE STATE. | Population. 1885. | Deaths. | | | | Under one year. | 1 and under 2. |
|---|---|---|---|---|---|---|---|
| | | Whole Number. | In each 1000 of Populat'n. | SEX. | Number of each Sex. | | |
| Burrillville.... .... | 5,124 | 85 | 16.6 | Males..... | 40 | 6 | 2 |
| | | | | Females... | 45 | 12 | 1 |
| Cranston ........ | *6,109 | †109 | 22.5 | Males..... | 57 | 12 | 1 |
| | | | | Females... | 52 | 8 | 3 |
| Cumberland...... | 7,167 | 158 | 22.0 | Males..... | 81 | 16 | 6 |
| | | | | Females... | 77 | 12 | 7 |
| East Providence .. | 6,809 | 105 | 15.4 | Males..... | 51 | 14 | 4 |
| | | | | Females... | 54 | 13 | 4 |
| Foster............ | 1,397 | 24 | 17.2 | Males..... | 18 | 1 | .... |
| | | | | Females... | 6 | .... | .... |
| Glocester......... | 1,922 | 31 | 16.1 | Males..... | 16 | 2 | 2 |
| | | | | Females... | 15 | 1 | 1 |
| Johnston ........ | 7,273 | 83 | 11.4 | Males..... | 38 | 10 | 4 |
| | | | | Females... | 45 | 10 | 1 |
| Lincoln.......... | 17,269 | 283 | 16.3 | Males..... | 134 | 39 | 8 |
| | | | | Females... | 149 | 48 | 6 |
| North Providence. | 1,478 | 16 | 10.8 | Males..... | 5 | 1 | .... |
| | | | | Females... | 11 | .... | 2 |
| North Smithfield.. | 3,088 | 36 | 11.6 | Males..... | 15 | 2 | .... |
| | | | | Females... | 21 | .... | 2 |
| Pawtucket....... | 22,894 | 353 | 15.4 | Males..... | 174 | 47 | 9 |
| | | | | Females... | 179 | 31 | 10 |
| Scituate.......... | 3,607 | 58 | 16.1 | Males..... | 24 | 3 | 1 |
| | | | | Females... | 34 | 3 | 1 |
| Smithfield ... .... | 2,338 | 24 | 10.3 | Males..... | 12 | 3 | .... |
| | | | | Females... | 12 | 2 | .... |
| Woonsocket...... | 16,145 | 282 | 17.4 | Males..... | 133 | 28 | 18 |
| | | | | Females... | 149 | 31 | 8 |
| Towns, Prov. Co. | 102,620 | 1,647 | .... | Males..... | 798 | 184 | 55 |
| | | | | Females... | 849 | 171 | 46 |
| Providence City. | 117,832 | 2,233 | 18.9 | Males..... | 1,084 | 252 | 79 |
| | | | | Females... | 1,149 | 217 | 61 |
| Charlestown...... | 1,042 | 16 | 15.4 | Males..... | 9 | 2 | .... |
| | | | | Females... | 7 | 2 | ... |
| Exeter........... | 1,083 | 18 | 16.6 | Males..... | 13 | 1 | .... |
| | | | | Females... | 5 | 2 | .... |
| Hopkinton....... | 2,796 | 24 | 08.6 | Males..... | 8 | .... | .... |
| | | | | Females... | 16 | 2 | 2 |
| N. Kingstown .... | 3,869 | 50 | 12.9 | Males..... | 24 | 6 | .... |
| | | | | Females... | 26 | 1 | 1 |
| S. Kingstown..... | 5,516 | 52 | 09.4 | Males..... | 21 | 1 | .... |
| | | | | Females... | 31 | 3 | .... |
| Richmond........ | 1,744 | 16 | 09.2 | Males..... | 9 | 2 | .... |
| | | | | Females... | 7 | 2 | .... |
| Westerly ......... | 6,314 | 106 | 16.7 | Males..... | 58 | 11 | 2 |
| | | | | Females... | 48 | 8 | 3 |
| Washington Co.. | 22,364 | 282 | 12.6 | Males..... | 142 | 23 | 2 |
| | | | | Females... | 140 | 20 | 6 |
| State Ins. Cranston | ........ | 95 | 78.7 | Males..... | 49 | 2 | .... |
| | | | | Females... | 46 | 2 | .... |

* Including 1,207 in State Institutions, Cranston. † Not including deaths in State Institutions.

## Table VII.—DEATHS, 1884.—Continued.

| 2 and under 3. | 3 and under 5. | 5 and under 10. | 10 and under 15. | 15 and under 20. | 20 and under 30. | 30 and under 40. | 40 and under 50. | 50 and under 60. | 60 and under 70. | 70 and under 80. | 80 and under 90. | 90 and over. | Age not stated. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 2 | .... | 3 | 3 | 2 | 4 | 3 | 5 | 2 | 3 | 2 | .... |
| 2 | .... | 1 | .... | 2 | 6 | 1 | 7 | 1 | 3 | 3 | 6 | .... | .... |
| 2 | .... | 1 | 2 | 2 | 3 | 1 | 4 | 8 | 6 | 8 | 5 | 1 | 1 |
| 1 | 4 | 2 | 1 | 2 | 2 | 3 | 4 | 2 | 4 | 8 | 5 | 1 | 2 |
| 3 | 6 | 6 | 2 | .... | 9 | 5 | 4 | 6 | 7 | 3 | 8 | .... | .... |
| 3 | .... | 4 | 1 | 5 | 9 | 9 | 3 | 6 | 4 | 11 | 2 | 1 | .... |
| .... | 1 | 2 | 2 | 4 | 2 | 2 | 6 | 4 | 3 | 4 | 3 | .... | .... |
| 1 | 1 | 1 | 3 | 1 | 5 | 5 | 2 | 4 | 3 | 6 | 4 | 1 | .... |
| .... | .... | 1 | .... | .... | 1 | .... | 2 | 2 | 2 | 5 | 2 | 2 | .... |
| .... | .... | .... | .... | 1 | 2 | .... | .... | 1 | .... | 1 | 1 | .... | .... |
| .... | 3 | .... | .... | .... | .... | 1 | .... | 2 | 2 | 1 | 3 | .... | .... |
| .... | .... | 1 | .... | .... | .... | .... | .... | 2 | 2 | 3 | 4 | 1 | .... |
| .... | 2 | 1 | 2 | .... | 2 | 3 | .... | 5 | 7 | 1 | .... | .... | 1 |
| 4 | 1 | .... | 1 | .... | 6 | 6 | 1 | 5 | 4 | 4 | 2 | .... | .... |
| 12 | 16 | 5 | 3 | 5 | 6 | 7 | 7 | 4 | 5 | 9 | 4 | .... | 4 |
| 6 | 8 | 6 | 3 | 6 | 14 | 12 | 9 | 5 | 12 | 9 | 3 | 1 | 1 |
| .... | .... | .... | .... | 1 | 1 | .... | .... | .... | 1 | 1 | .... | .... | .... |
| .... | .... | 1 | 1 | .... | 1 | .... | .... | 2 | 1 | 2 | .... | 1 | .... |
| .... | 1 | 2 | 2 | .... | 5 | .... | .... | .... | 1 | 2 | .... | .... | .... |
| 1 | 1 | .... | .... | 1 | 3 | 2 | 4 | 2 | 1 | 2 | 1 | 1 | .... |
| 2 | 6 | 5 | 1 | 4 | 20 | 16 | 10 | 15 | 19 | 12 | 6 | .... | 2 |
| 5 | 9 | 8 | 4 | 7 | 17 | 15 | 15 | 13 | 21 | 11 | 9 | 3 | 1 |
| .... | 1 | .... | .... | 1 | 2 | 2 | 1 | 1 | 5 | 5 | 2 | .... | .... |
| 1 | 1 | .... | .... | 1 | 6 | 3 | 1 | 5 | 1 | 4 | 7 | .... | .... |
| .... | 1 | .... | .... | 1 | .... | .... | .... | 3 | 1 | 1 | 1 | 1 | .... |
| .... | .... | .... | .... | 2 | 1 | 1 | .... | .... | 2 | 1 | 2 | 1 | .... |
| 5 | 6 | 6 | 2 | 3 | 16 | 12 | 4 | 18 | 9 | 5 | 1 | .... | .... |
| 5 | 1 | 1 | 3 | 9 | 18 | 20 | 8 | 14 | 13 | 11 | 4 | 2 | 1 |
| 25 | 45 | 31 | 16 | 24 | 70 | 51 | 42 | 71 | 73 | 59 | 38 | 6 | 8 |
| 29 | 26 | 25 | 17 | 37 | 90 | 77 | 54 | 62 | 71 | 76 | 50 | 13 | 5 |
| 47 | 45 | 40 | 16 | 22 | 107 | 90 | 81 | 87 | 94 | 77 | 38 | 9 | .... |
| 34 | 38 | 49 | 16 | 36 | 113 | 110 | 96 | 90 | 92 | 108 | 75 | 14 | .... |
| .... | .... | .... | .... | .... | .... | 2 | .... | 2 | .... | 2 | 1 | .... | .... |
| 2 | .... | .... | .... | 1 | .... | .... | .... | .... | .... | 2 | .... | .... | .... |
| .... | .... | .... | .... | 2 | 1 | 1 | .... | .... | 4 | 1 | 3 | .... | .... |
| .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | 1 | 1 | .... | .... |
| .... | 1 | .... | .... | .... | .... | .... | .... | .... | 2 | 3 | 2 | .... | .... |
| .... | .... | .... | .... | .... | 2 | 1 | .... | 3 | .... | 4 | 2 | .... | .... |
| .... | .... | .... | 1 | .... | 1 | 1 | 2 | 2 | 3 | 5 | 3 | .... | .... |
| .... | .... | 1 | .... | 2 | 3 | 4 | 1 | 1 | 3 | 4 | 4 | 1 | .... |
| .... | 1 | 1 | .... | .... | 2 | .... | 4 | 1 | 4 | 5 | 2 | .... | .... |
| .... | .... | 1 | 1 | 1 | 4 | 3 | 3 | 2 | 3 | 3 | 4 | 3 | .... |
| 1 | .... | .... | .... | .... | .... | 1 | .... | 1 | .... | 1 | 2 | .... | 1 |
| .... | .... | .... | 1 | 1 | .... | 1 | 1 | 1 | .... | .... | .... | .... | .... |
| 2 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 7 | 10 | 6 | 2 | .... | .... |
| 1 | 1 | 5 | 1 | 3 | 1 | 2 | 6 | 7 | 3 | 4 | 1 | 1 | 1 |
| 3 | 5 | 3 | 3 | 5 | 7 | 8 | 8 | 13 | 23 | 23 | 15 | .... | 1 |
| 3 | 1 | 7 | 3 | 8 | 10 | 11 | 11 | 14 | 10 | 18 | 12 | 5 | 1 |
| .... | .... | .... | 1 | 1 | 2 | 6 | 8 | 6 | 6 | 5 | 2 | 1 | 9 |
| .... | .... | .... | .... | .... | 5 | 7 | 5 | 6 | 4 | 7 | 3 | 1 | 6 |

## TABLE VII Continued.—DEATHS, 1884, RECAPITULATION.

| DIVISIONS OF THE STATE. | Population, 1885. | DEATHS. | | | | Under one year. | 1 and under 2. |
|---|---|---|---|---|---|---|---|
| | | Whole Number. | In each 1000 of Populat'n. | SEX. | Number of each Sex. | | |
| BRISTOL COUNTY.. | 11,336 | 201 | 17.7 | Males..... | 97 | 23 | 4 |
| | | | | Females... | 104 | 22 | 7 |
| KENT COUNTY.... | 21,615 | 275 | 17.1 | Males..... | 133 | 24 | 5 |
| | | | | Females... | 142 | 22 | 3 |
| NEWPORT COUNTY. | 28,233 | 408 | 14.5 | Males..... | 183 | 37 | 8 |
| | | | | Females... | 225 | 35 | 11 |
| PROVIDENCE CO .. | *220,452 | †3,880 | †17.6 | Males..... | 1,882 | 436 | 134 |
| | | | | Females... | 1,998 | 388 | 107 |
| WASHINGTON CO.. | 22,364 | 282 | 12.6 | Males..... | 142 | 23 | 2 |
| | | | | Females... | 140 | 20 | 6 |
| STATE INST'S..... | 1,207 | 95 | 78.7 | Males..... | 49 | 2 | .... |
| | | | | Females... | 46 | 2 | .... |
| WHOLE STATE .... | 304,000 | 5,141 | 16.9 | Males..... | 2,486 | 545 | 153 |
| | | | | Females... | 2,655 | 489 | 134 |

* Including 1,207 in State Institutions. † Not including deaths in State Institutions.

## TABLE VII Continued.—DEATHS, 1884, RECAPITULATION.

| 2 and under 3. | 3 and under 5. | 5 and under 10. | 10 and under 15. | 15 and under 20. | 20 and under 30. | 30 and under 40. | 40 and under 50. | 50 and under 60. | 60 and under 70. | 70 and under 80. | 80 and under 90. | 90 and over. | Age not stated. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 3 | 4 | .... | 2 | 9 | 7 | 7 | 6 | 10 | 10 | 7 | 1 | .... |
| .... | 2 | 2 | 1 | 3 | 9 | 6 | 3 | 6 | 11 | 18 | 11 | 3 | .... |
| 4 | 2 | 4 | 4 | 4 | 6 | 3 | 5 | 14 | 19 | 20 | 13 | 2 | 4 |
| 6 | 3 | 4 | 3 | 7 | 12 | 11 | 16 | 10 | 14 | 14 | 8 | 6 | 3 |
| .... | 5 | 6 | 2 | 6 | 16 | 14 | 17 | 16 | 21 | 20 | 12 | 3 | .... |
| 4 | 7 | 6 | 3 | 5 | 15 | 14 | 15 | 18 | 23 | 35 | 29 | 5 | .... |
| 72 | 90 | 71 | 32 | 46 | 177 | 141 | 123 | 158 | 167 | 136 | 76 | 15 | 8 |
| 63 | 64 | 74 | 33 | 73 | 203 | 187 | 150 | 152 | 163 | 184 | 125 | 27 | 5 |
| 3 | 5 | 3 | 3 | 5 | 7 | 8 | 8 | 13 | 23 | 23 | 15 | .... | 1 |
| 3 | 1 | 7 | 3 | 8 | 10 | 11 | 11 | 14 | 10 | 18 | 12 | 5 | 1 |
| .... | .... | .... | 1 | 1 | 2 | 6 | 8 | 6 | 6 | 5 | 2 | 1 | 9 |
| .... | .... | .... | .... | .... | 5 | 7 | 5 | 6 | 4 | 7 | 3 | 1 | 6 |
| 83 | 105 | 88 | 42 | 64 | 217 | 179 | 168 | 213 | 246 | 214 | 125 | 22 | 22 |
| 76 | 77 | 93 | 43 | 96 | 254 | 236 | 200 | 206 | 225 | 276 | 188 | 47 | 15 |

## TABLE VIII.—CAUSES OF DEATH, 1884.

*Arranged Alphabetically; showing the Number of each Sex, who died from each cause, in each Month and in the whole year 1884; also the Number of American and of Foreign Parentage, from each cause, for the year.*

| CAUSES OF DEATH. | Jan. | | Feb. | | Mar. | | April. | | May. | | June. | | July. | | Aug. | | Sept. | | Oct. | | Nov. | | Dec. | | PARENTAGE. | | SEX. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | Am. | For. | M. | F. | Total. |
| Accidents, Various | 5 | 3 | 3 | 1 | 2 | 2 | 6 | 2 | 4 | 1 | 4 | 1 | 4 | 3 | 3 | .. | 4 | 1 | 2 | 3 | 5 | 1 | 2 | 3 | 30 | 35 | 44 | 21 | 65 |
| " Burns and Scalds | .. | 2 | 1 | .. | 2 | .. | .. | .. | .. | 1 | 2 | 1 | .. | 3 | 1 | 1 | .. | .. | .. | 3 | 2 | 1 | .. | .. | 7 | 13 | 8 | 12 | 20 |
| " Drowning | .. | .. | 1 | .. | 6 | .. | 8 | .. | 5 | 1 | 1 | 1 | 7 | 2 | 1 | 1 | 3 | .. | 2 | 1 | .. | .. | 1 | .. | 18 | 23 | 35 | 6 | 41 |
| " Falls | 2 | .. | .. | .. | 2 | 1 | 1 | .. | 1 | .. | 4 | 2 | 1 | .. | 2 | .. | 3 | .. | 3 | .. | 2 | 1 | 6 | .. | 17 | 14 | 27 | 4 | 31 |
| " Poisoning | .. | 1 | .. | .. | .. | .. | .. | .. | 1 | 1 | 1 | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 2 | .. | .. | .. | 5 | 2 | 5 | 2 | 7 |
| " Railroad | 1 | .. | .. | .. | 1 | .. | 2 | .. | 1 | .. | 5 | .. | 1 | .. | .. | .. | .. | .. | 4 | .. | 1 | .. | .. | .. | 8 | 8 | 16 | ... | 16 |
| Abscesses | .. | .. | 1 | .. | .. | .. | 1 | 1 | 1 | 1 | 1 | .. | 2 | .. | 1 | 1 | 3 | .. | 1 | .. | 2 | .. | 2 | .. | 8 | 10 | 15 | 3 | 18 |
| Adenitis | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .... | 2 | 2 | ... | 2 |
| Alcoholism | 2 | .. | 1 | 1 | 1 | .. | 2 | 1 | .. | .. | 1 | 3 | 4 | 2 | 2 | 1 | 2 | .. | 3 | .. | 1 | .. | .. | 1 | 10 | 17 | 19 | 8 | 27 |
| Anæmia | .. | .. | .. | . | 2 | 1 | .. | 2 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | 1 | 2 | 5 | 3 | 4 | 7 |
| Aneurism | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | 2 | 1 | 1 | 2 | 3 |
| Apoplexy | 9 | 9 | 4 | 8 | 5 | 7 | 13 | 9 | 4 | 10 | 4 | 9 | 6 | 6 | 4 | 10 | 11 | 7 | 7 | 5 | 7 | 4 | 12 | 12 | 104 | 78 | 86 | 96 | 182 |
| Asthenia | .. | 1 | .. | 1 | .. | .. | .. | .. | .. | 2 | 1 | .. | .. | .. | 1 | 1 | 1 | 2 | .. | 3 | .. | .. | .. | 2 | 12 | 3 | 3 | 12 | 15 |
| Asthma | .. | 2 | .. | .. | .. | 1 | .. | .. | .. | 1 | 1 | .. | 1 | .. | .. | .. | .. | 1 | .. | 1 | .. | 1 | 1 | .. | 5 | 5 | 3 | 7 | 10 |
| Asphyxia | .. | .. | .. | .. | .. | .. | 2 | .. | .. | .. | .. | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | 1 | .. | 2 | .. | .... | 7 | 5 | 2 | 7 |
| Atelectasis Pulmonum | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 2 | .. | 2 | 1 | 3 | ... | 3 |
| Bladder, Disease of | .. | .. | 2 | .. | 2 | 2 | 1 | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | 3 | .. | .. | .. | 1 | 1 | 8 | 5 | 10 | 3 | 13 |
| Bones, Disease of. | .. | .. | 2 | .. | 1 | .. | 1 | .. | 1 | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 5 | 1 | 5 | 1 | 6 |
| Bowels, Disease of. | .. | .. | .. | .. | 1 | .. | 1 | .. | 1 | 1 | 1 | .. | .. | .. | .. | 1 | 1 | 3 | 2 | .. | .. | .. | .. | .. | 6 | 6 | 7 | 5 | 12 |
| " Intussusception of | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | .. | 2 | 2 | 2 | 2 | 4 |
| Brain, Disease of | 3 | 2 | 2 | 1 | 2 | 1 | 4 | 2 | 4 | 2 | 2 | .. | 2 | 2 | 2 | 4 | 2 | 3 | .. | 3 | 1 | 2 | 8 | 2 | 29 | 27 | 32 | 24 | 56 |

| CAUSES OF DEATH. | Jan. | | Feb. | | Mar. | | April. | | May. | | June. | | July. | | Aug. | | Sept. | | Oct. | | Nov. | | Dec. | | PARENTAGE. | | SEX. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M. | F. | M. | F. | M. | F. | M | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | Am. | For. | M. | F. | Total. |
| Brain, Congestion of | 2 | 1 | .. | .. | 1 | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | 1 | .. | 1 | 1 | 1 | 1 | .. | .. | 2 | 1 | 9 | 5 | 8 | 6 | 14 |
| " Inflammation of | 5 | 2 | 2 | 2 | 5 | 2 | 2 | 4 | 3 | .. | 2 | 2 | 5 | 2 | 9 | 2 | 7 | 5 | 3 | 1 | 6 | 3 | 1 | 3 | 33 | 45 | 50 | 28 | 78 |
| Bronchitis, Acute | 3 | 2 | 4 | 4 | 4 | 3 | 4 | 6 | 3 | 4 | 3 | .. | 3 | 2 | 3 | 1 | 1 | 1 | 5 | 4 | 2 | 5 | 8 | 6 | 31 | 50 | 43 | 38 | 81 |
| " Chronic | 1 | 3 | 3 | 5 | .. | 4 | .. | 1 | 2 | 3 | 1 | .. | 3 | 1 | 2 | 3 | 1 | .. | .. | 1 | 1 | 1 | 1 | .. | 17 | 20 | 15 | 22 | 37 |
| Cancer, Various | 2 | 5 | 2 | 4 | 2 | 6 | 1 | 3 | 5 | 7 | 1 | 10 | 1 | 3 | 4 | 6 | 1 | 7 | 3 | 6 | 5 | 6 | 2 | 2 | 51 | 43 | 29 | 65 | 94 |
| " of Breast | .. | 1 | .. | 2 | .. | 3 | .. | 2 | .. | 1 | .. | 2 | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 4 | .. | 2 | 13 | 5 | ... | 18 | 18 |
| " of Stomach | 2 | .. | .. | 1 | 1 | .. | 1 | 1 | .. | 1 | 1 | .. | 2 | 1 | .. | .. | .. | 2 | 2 | 1 | 1 | 4 | .. | 1 | 11 | 11 | 10 | 12 | 22 |
| " of Uterus | .. | .. | .. | 3 | .. | 1 | .. | 1 | .. | 2 | .. | 1 | .. | 2 | .. | 2 | .. | 2 | .. | 2 | .. | 4 | .. | 2 | 13 | 9 | ... | 22 | 22 |
| Cancrum Oris | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | 1 | .. | 2 | .. | .. | .. | .. | .. | .. | 3 | 2 | 2 | 3 | 5 |
| Carbuncle | .. | .. | .. | .. | 1 | .. | .. | .. | 1 | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | 2 | 2 | 2 | 2 | 4 |
| Catarrh | .. | .. | .. | 2 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | .. | .. | .. | 1 | .. | .. | 2 | 3 | ... | 5 | 5 |
| Child-birth | .. | 4 | .. | 1 | .. | .. | .. | 2 | .. | 2 | .. | 3 | .. | 2 | .. | 2 | .. | 3 | .. | 2 | .. | 3 | .. | 3 | 10 | 17 | ... | 27 | 27 |
| " Puerperal Conv. | .. | .. | .. | .. | .. | 1 | .. | 1 | .. | 2 | .. | 1 | .. | .. | .. | 1 | .. | 1 | .. | 1 | .. | .. | .. | .. | 4 | 4 | ... | 8 | 8 |
| " " Fever. | .. | 2 | .. | 2 | .. | 1 | .. | 1 | .. | .. | .. | 2 | .. | .. | .. | 2 | .. | .. | .. | .. | .. | 1 | .. | 1 | 3 | 9 | ... | 12 | 12 |
| Cholera Infantum | 2 | 1 | 2 | 2 | 1 | 1 | .. | .. | .. | 1 | 7 | 6 | 48 | 46 | 64 | 49 | 33 | 28 | 14 | 11 | 3 | .. | 3 | 3 | 139 | 186 | 177 | 148 | 325 |
| " Morbus | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 2 | .. | 3 | 4 | .. | .. | 4 | .. | 1 | 1 | .. | 1 | .. | .. | 3 | 14 | 11 | 6 | 17 |
| " Sporadic | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .... | 1 | ... | 1 | 1 |
| Colic | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 3 | .... | 2 | 1 | 3 |
| Consumption | 30 | 27 | 20 | 29 | 33 | 28 | 34 | 41 | 25 | 44 | 21 | 32 | 26 | 27 | 26 | 44 | 25 | 39 | 31 | 33 | 21 | 33 | 30 | 40 | 277 | 462 | 322 | 417 | 739 |
| Cystitis | .. | .. | 2 | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | 1 | .. | 1 | .. | .. | 1 | .. | .. | 1 | .. | 3 | 4 | 5 | 2 | 7 |
| Convulsions | 7 | 2 | 4 | 7 | 4 | 7 | 6 | 9 | 4 | 3 | 6 | 2 | 7 | 7 | 11 | 5 | 7 | 5 | 6 | 9 | 4 | 3 | 8 | 6 | 66 | 73 | 74 | 65 | 139 |
| Croup | 2 | 9 | 3 | 3 | 1 | 7 | 5 | 3 | 2 | .. | .. | .. | 3 | .. | .. | 2 | 1 | 3 | 5 | 2 | 6 | 7 | 12 | 4 | 32 | 48 | 40 | 40 | 80 |
| Cyanosis | 1 | 1 | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | 3 | 1 | 1 | 3 | 4 |
| Debility | .. | 2 | 4 | 1 | 1 | .. | 5 | 2 | 1 | 2 | 1 | 2 | 1 | 3 | 2 | 5 | 2 | 4 | 1 | 2 | 4 | 2 | 1 | 3 | 18 | 33 | 23 | 28 | 51 |
| " Infantile | 3 | 4 | 4 | 4 | 4 | 2 | 5 | 5 | 6 | 1 | 2 | 6 | 2 | 6 | 8 | 6 | 6 | 5 | 6 | 3 | 5 | 5 | 4 | 4 | 57 | 49 | 55 | 51 | 106 |
| Diabetes | .. | 1 | .. | .. | 1 | 1 | 2 | .. | 2 | 1 | .. | .. | .. | .. | 1 | 3 | 2 | 3 | 2 | 2 | 2 | 1 | 1 | .. | 14 | 11 | 13 | 12 | 25 |

## TABLE VIII.—CAUSES OF DEATH, 1884.—Continued.

| CAUSES OF DEATH. | Jan. |  | Feb. |  | Mar. |  | April |  | May. |  | June. |  | July. |  | Aug. |  | Sept. |  | Oct. |  | Nov. |  | Dec. |  | PARENTAGE. |  | SEX. |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | Am. | For. | M. | F. | Total. |
| Diarrhœa | 1 | 2 | .. | 1 | 2 | 1 | 1 | 1 | .. | .. | 3 | 4 | 9 | 12 | 14 | 9 | 11 | 4 | 4 | 6 | 1 | .. | .. | 2 | 41 | 47 | 46 | 42 | 88 |
| " Chronic | .. | 1 | .. | 1 | .. | .. | 1 | 2 | .. | .. | 1 | 1 | .. | 1 | 1 | 3 | 1 | 1 | 2 | 3 | 3 | 2 | .. | 1 | 12 | 13 | 9 | 16 | 25 |
| Diphtheria | 6 | 2 | 2 | 3 | 3 | 9 | 1 | 1 | 3 | 2 | .. | 1 | 1 | 1 | 4 | 5 | 11 | 1 | 10 | 5 | 14 | 10 | 10 | 14 | 47 | 72 | 65 | 54 | 119 |
| Dropsy | 4 | 3 | .. | 1 | 2 | 3 | .. | 3 | .. | 1 | 3 | 1 | 3 | 3 | 3 | 1 | .. | 2 | 2 | .. | 2 | 1 | 1 | 1 | 20 | 20 | 20 | 20 | 40 |
| Dysentery | .. | .. | .. | .. | 1 | .. | .. | .. | .. | 2 | .. | .. | 4 | 4 | 2 | 4 | 7 | 5 | 5 | 3 | .. | 2 | .. | 1 | 16 | 24 | 19 | 21 | 40 |
| Embolism | .. | .. | .. | .. | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | 2 | ... | 2 |
| Enteritis | 1 | 1 | 1 | 2 | 2 | 1 | .. | 1 | .. | 1 | .. | .. | 4 | 3 | 2 | 2 | 4 | 2 | 1 | 1 | .. | 3 | 2 | 1 | 22 | 13 | 17 | 18 | 35 |
| " Colo | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | 4 | .. | 2 | 1 | .. | .. | .. | .. | 5 | 4 | 6 | 3 | 9 |
| " Gastro | 1 | .. | 1 | .. | .. | 1 | .. | 1 | .. | .. | 2 | .. | 1 | 1 | 5 | 6 | 3 | 2 | 2 | 2 | 1 | 2 | 1 | .. | 16 | 16 | 17 | 15 | 32 |
| Epilepsy | 2 | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | 1 | .. | .. | 1 | .. | 3 | 1 | 5 | 6 | 8 | 3 | 11 |
| Erysipelas | 2 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 2 | .. | 1 | 1 | 1 | 1 | .. | .. | 1 | .. | .. | 1 | 3 | .. | 1 | .. | 15 | 10 | 17 | 8 | 25 |
| Exposure | 2 | .. | 1 | .. | 1 | 1 | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 1 | .. | 3 | 5 | 7 | 1 | 8 |
| Fever, Unspecified | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | 2 | .. | 1 | .. | 1 | 2 | 4 | 2 | 4 | 6 |
| " Bilious | .. | .. | .. | .. | .. | .. | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | .... | 1 | 1 | 2 |
| " Gastric | .. | .. | .. | .. | .. | .. | 1 | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | ... | 2 | 1 | 1 | 2 |
| " Malarial | .. | .. | .. | .. | .. | .. | 1 | 1 | 1 | 1 | .. | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | .. | .. | .. | 1 | 11 | 14 | 11 | 14 | 25 |
| " Typho Malarial | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 3 | .. | .. | .. | .. | 2 | 2 | ... | 4 | 4 |
| " Typhoid | 4 | 6 | 6 | 3 | 3 | 3 | 3 | 2 | 4 | 2 | 4 | 2 | 5 | 3 | 5 | 3 | 11 | 7 | 11 | 15 | 8 | 9 | 4 | 3 | 61 | 65 | 68 | 58 | 126 |
| Gangrene | .. | .. | 1 | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | 1 | .. | 1 | .. | 1 | 3 | .. | 6 | 4 | 6 | 4 | 10 |
| Glossitis | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .... | 2 | 1 | 1 | 2 |
| Gout | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .... | 1 | 1 | ... | 1 |
| Heart, Disease of | 11 | 8 | 5 | 8 | 12 | 14 | 13 | 11 | 11 | 25 | 8 | 9 | 12 | 5 | 11 | 7 | 15 | 14 | 10 | 15 | 10 | 14 | 11 | 12 | 155 | 116 | 129 | 142 | 271 |
| " Hypertrophy of | 1 | 2 | .. | .. | .. | .. | 2 | .. | 1 | 1 | .. | 1 | .. | .. | 1 | .. | .. | 1 | .. | 1 | 1 | 2 | .. | .. | 8 | 6 | 6 | 8 | 14 |
| Heat | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .... | 2 | 2 | ... | 2 |

| CAUSES OF DEATH. | Jan. | | Feb. | | Mar. | | Apr. | | May. | | June. | | July. | | Aug. | | Sept. | | Oct. | | Nov. | | Dec. | | PARENTAGE. | | SEX. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | Am. | For. | M. | F. | Total. |
| Hemorrhage | .. | 1 | 3 | 1 | 2 | 1 | .. | 1 | 1 | .. | .. | .. | .. | 1 | 1 | .. | .. | .. | 3 | 3 | 1 | 2 | 1 | 1 | 10 | 13 | 12 | 11 | 23 |
| Hernia | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 1 | 1 | 1 | .. | 2 | .. | 3 | .. | .. | .. | .. | 1 | 1 | 3 | 8 | 2 | 9 | 11 |
| Hip Joint, Disease of | .. | .. | 1 | 1 | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 4 | 1 | 4 | 1 | 5 |
| Hydrocephalus | 1 | .. | 2 | 4 | 3 | 1 | 4 | 6 | 1 | .. | 1 | .. | 2 | 2 | 3 | 2 | 2 | 2 | 1 | 2 | 1 | .. | 1 | 1 | 18 | 24 | 22 | 20 | 42 |
| Inanition | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | 1 | .. | 2 | 1 | .. | .. | .. | .. | 1 | 1 | 1 | 1 | 6 | 3 | 5 | 4 | 9 |
| Insanity | 3 | 2 | .. | 2 | 2 | 1 | 1 | .. | 2 | 1 | 1 | 1 | 3 | 1 | .. | 2 | 2 | 3 | .. | 3 | 2 | 1 | 1 | 2 | 24 | 12 | 17 | 19 | 36 |
| Jaundice | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | 1 | .. | .. | .. | 1 | .. | .. | .. | 3 | 1 | 2 | 2 | 4 |
| Kidneys, Disease of | 2 | 3 | .. | 2 | 3 | 2 | 2 | 1 | 1 | 1 | .. | 2 | 2 | .. | 3 | 1 | .. | 2 | 1 | 2 | 1 | 3 | 1 | 4 | 19 | 20 | 16 | 23 | 39 |
| " Bright's Disease of | 1 | 5 | 3 | 3 | 5 | 3 | 3 | 1 | 4 | 5 | 3 | 3 | 1 | 2 | 2 | 3 | 5 | 5 | 3 | 3 | 4 | 5 | 3 | 4 | 47 | 32 | 37 | 42 | 79 |
| Laryngitis | .. | .. | 1 | .. | 1 | 1 | 1 | 1 | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 1 | .. | 1 | .. | .. | 3 | 5 | 3 | 5 | 8 |
| Leucocythæmia | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | 2 | .... | 1 | 1 | 2 |
| Liver, Disease of | 1 | 1 | 2 | 2 | 1 | 5 | 2 | .. | 1 | 3 | 1 | .. | 2 | 1 | .. | 2 | 1 | 2 | 1 | 3 | 2 | .. | 3 | 2 | 20 | 18 | 17 | 21 | 38 |
| " Inflammation of | 1 | .. | 2 | .. | .. | .. | .. | 1 | .. | .. | 1 | 1 | .. | .. | .. | .. | .. | 1 | .. | 1 | .. | 1 | 1 | .. | 3 | 7 | 5 | 5 | 10 |
| Lungs, Disease of, Unspecified | 1 | 1 | .. | 2 | 2 | .. | .. | 2 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | 3 | 7 | 4 | 6 | 10 |
| Malformations | .. | 1 | .. | .. | .. | 1 | .. | .. | 1 | .. | 3 | .. | 1 | .. | 1 | .. | 1 | .. | 1 | .. | 1 | 1 | 2 | .. | 6 | 10 | 13 | 3 | 16 |
| Malignant Pustule | .. | .. | 1 | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | 1 | 2 | 1 | 3 |
| Malnutrition | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .... | 1 | ... | 1 | 1 |
| Marasmus | 1 | .. | 5 | 2 | 2 | 1 | 1 | 2 | .. | .. | 1 | 5 | 2 | 2 | 9 | 7 | 10 | 5 | 8 | 8 | 4 | 3 | 3 | 1 | 37 | 45 | 46 | 36 | 82 |
| Measles | 1 | .. | 2 | 2 | .. | .. | .. | .. | 1 | .. | 1 | 3 | .. | .. | 2 | .. | 2 | .. | .. | .. | 1 | 2 | .. | 1 | 5 | 13 | 10 | 8 | 18 |
| Meningitis, Cerebro Spinal | .. | .. | 1 | .. | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 1 | 1 | 1 | 2 | .. | .. | 1 | .. | .. | .. | .. | 2 | 1 | 11 | 10 | 13 | 8 | 21 |
| " Spinal | .. | .. | .. | 1 | 1 | 1 | .. | .. | .. | 1 | .. | 2 | .. | 1 | .. | 1 | .. | 1 | .. | .. | .. | .. | .. | 1 | 4 | 6 | 1 | 9 | 10 |
| " Tubercular | 1 | 1 | 1 | 3 | .. | .. | 1 | .. | .. | 1 | .. | 1 | .. | .. | .. | 2 | 1 | .. | 1 | .. | 1 | .. | .. | .. | 3 | 11 | 6 | 8 | 14 |
| Murder | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | 2 | ... | 2 |
| Nephritis | .. | 1 | .. | .. | 1 | 1 | .. | .. | .. | 1 | .. | 1 | 1 | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | 4 | 3 | 3 | 4 | 7 |
| Old Age | 7 | 17 | 8 | 13 | 10 | 14 | 8 | 18 | 11 | 12 | 6 | 12 | 7 | 11 | 6 | 16 | 10 | 18 | 10 | 35 | 8 | 15 | 10 | 11 | 196 | 97 | 101 | 192 | 293 |
| Opiumism | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | 1 | .... | ... | 1 | 1 |

## TABLE VIII.—CAUSES OF DEATH, 1884.—Continued.

| CAUSES OF DEATH. | Jan. | | Feb. | | Mar. | | Apr. | | May. | | June. | | July. | | Aug. | | Sept. | | Oct. | | Nov. | | Dec. | | PARENTAGE. | | SEX. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | Am. | For. | M. | F. | Total. |
| Paralysis | 5 | 8 | 3 | 3 | 3 | 7 | 3 | 6 | 1 | 2 | 6 | 3 | 4 | 7 | 5 | 7 | 5 | 6 | 7 | 6 | 3 | 4 | 4 | 8 | 72 | 44 | 49 | 67 | 116 |
| Pelvic Hæmatocele | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .... | 1 | ... | 1 | 1 |
| Peritonitis | .. | 1 | .. | 1 | 1 | 2 | 1 | 4 | 3 | 3 | 1 | 1 | 3 | 1 | 3 | .. | 3 | .. | 1 | 1 | 3 | 4 | 1 | 2 | 14 | 26 | 20 | 20 | 40 |
| Pleurisy | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 1 | .. | .. | 2 | 3 | 2 | 3 | 5 |
| Pneumonia | 22 | 22 | 22 | 20 | 18 | 18 | 19 | 26 | 11 | 21 | 8 | 5 | 8 | 2 | 2 | 1 | 4 | 5 | 9 | 18 | 15 | 15 | 21 | 25 | 171 | 166 | 159 | 178 | 337 |
| " Cong. of Lungs | .. | 1 | 2 | 2 | 1 | 2 | 2 | 3 | .. | 2 | .. | 1 | 1 | 1 | .. | .. | .. | 1 | .. | 1 | 2 | 2 | .. | 2 | 21 | 5 | 8 | 18 | 26 |
| Prostate, Disease of | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 1 | .. | 3 | 1 | 4 | ... | 4 |
| Purpura Hemorrhagica | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .... | 1 | ... | 1 | 1 |
| Pyæmia | .. | .. | 1 | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | 1 | 1 | 2 |
| Quinsy | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | 2 | .... | 1 | 1 | 2 |
| Rheumatism | 2 | 3 | 2 | 2 | 1 | .. | 1 | .. | 1 | 1 | 1 | 2 | 2 | 4 | 1 | .. | 1 | 2 | 3 | .. | 1 | 3 | 1 | .. | 14 | 20 | 17 | 17 | 34 |
| Scarlatina | 3 | 3 | 1 | 4 | 1 | 3 | 1 | 3 | 3 | 5 | 5 | 3 | 1 | 2 | 3 | 2 | 3 | 3 | 5 | 12 | 9 | 10 | 4 | 8 | 41 | 56 | 39 | 58 | 97 |
| Scrofula | 1 | .. | 2 | .. | 2 | .. | 1 | 1 | 2 | .. | 1 | .. | .. | 1 | 2 | 1 | .. | .. | .. | 2 | 2 | 2 | .. | .. | 9 | 11 | 13 | 7 | 20 |
| Septicæmia | .. | .. | 1 | .. | .. | 1 | .. | 1 | .. | 1 | .. | 1 | 1 | 1 | .. | .. | 1 | .. | 1 | 1 | .. | .. | .. | 1 | 7 | 4 | 4 | 7 | 11 |
| Skin, Disease of | .. | .. | .. | 1 | .. | 2 | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 4 | 1 | 1 | 4 | 5 |
| Spine, Disease of | .. | .. | .. | .. | 1 | .. | .. | 1 | 1 | 1 | 1 | .. | 1 | 1 | 1 | .. | .. | .. | 1 | .. | .. | 1 | 2 | 1 | 5 | 8 | 8 | 5 | 13 |
| Stenosis | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 1 | 1 | 1 | .. | .. | .. | 2 | 3 | 4 | 1 | 5 |
| Stomach, Disease of | 2 | .. | .. | 1 | 1 | .. | .. | .. | .. | 1 | 1 | .. | 1 | .. | .. | 1 | .. | 2 | 2 | 1 | 1 | .. | .. | 2 | 9 | 7 | 8 | 8 | 16 |
| " Inflammation of | 1 | 2 | .. | 2 | .. | 1 | 1 | 1 | 1 | 1 | .. | 1 | .. | .. | 3 | .. | .. | 1 | 1 | 2 | .. | 3 | 1 | .. | 10 | 12 | 8 | 14 | 22 |
| Suicide | 4 | .. | .. | 1 | 1 | .. | 3 | .. | .. | .. | 4 | 1 | 1 | .. | 2 | .. | 1 | .. | 2 | .. | .. | .. | 2 | .. | 13 | 9 | 20 | 2 | 22 |
| Sunstroke | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .... | 2 | 1 | 1 | 2 |
| Surgical Operation | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | 1 | .... | ... | 1 | 1 |
| Syphilis | 1 | .. | .. | 1 | .. | 1 | 1 | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | 1 | 5 | 2 | 4 | 3 | 7 |
| " Congenital | .. | .. | .. | .. | .. | .. | 1 | .. | 2 | .. | .. | 1 | .. | 1 | .. | .. | .. | .. | 1 | .. | .. | .. | 1 | .. | 6 | 1 | 5 | 2 | 7 |

| CAUSES OF DEATH. | Jan. | | Feb. | | Mar. | | Apr. | | May. | | June. | | July. | | Aug. | | Sept. | | Oct. | | Nov. | | Dec. | | PARENTAGE. | | SEX. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | Am. | For. | M. | F. | Total. |
| Tabes Mesenterica | .. | .. | .. | .. | .. | .. | 1 | .. | 1 | .. | 1 | .. | 1 | 1 | .. | 3 | 1 | 1 | .. | 1 | 1 | .. | .. | 2 | 8 | 6 | 6 | 8 | 14 |
| Teething | .. | 1 | 1 | 2 | .. | .. | 2 | 1 | 2 | 1 | .. | 2 | .. | 3 | 1 | .. | 2 | 1 | 1 | 1 | .. | .. | .. | .. | 7 | 14 | 9 | 12 | 21 |
| Tetanus | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 1 | 2 | 3 | ... | 3 |
| Trismus Nascentium | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .... | 2 | 2 | ... | 2 |
| Thrush | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 1 | 1 | 2 | ... | 2 |
| Tuberculosis | 1 | 2 | 3 | 1 | 1 | 3 | .. | 2 | 1 | 4 | 2 | 1 | 2 | 1 | 1 | .. | 1 | 1 | 2 | 1 | 1 | .. | 4 | 1 | 20 | 16 | 19 | 17 | 36 |
| Tumors | .. | .. | .. | 3 | .. | 2 | .. | 2 | .. | 1 | .. | .. | .. | .. | 1 | 1 | .. | 1 | .. | 1 | .. | .. | 1 | 1 | 11 | 3 | 2 | 12 | 14 |
| Ulcers | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 2 | 2 | 4 | ... | 4 |
| Uræmia | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | ... | 2 | 1 | 1 | .. | 2 | .. | .. | 1 | .. | 4 | 4 | 2 | 6 | 8 |
| Uterus, Disease of | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | .... | ... | 1 | 1 |
| Urethra, Stricture of | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | .. | 1 | .. | .. | .. | 2 | 1 | 3 | ... | 3 |
| Whooping Cough | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | 2 | 2 | 1 | 5 | 2 | 4 | 8 | 1 | 4 | 1 | 5 | 1 | 2 | 2 | 1 | 23 | 20 | 17 | 26 | 43 |
| Unknown | 1 | 4 | 2 | 1 | .. | 3 | 2 | 1 | 3 | 1 | .. | 1 | 2 | .. | 5 | 1 | 1 | 3 | 1 | 3 | 4 | 1 | 2 | .. | 14 | 28 | 23 | 19 | 42 |

## TABLE IX.—CAUSES OF DEATH, 1884.

*Arranged Alphabetically; showing the Number of each Sex, who died from each cause, in each Period of Life.*

| CAUSES OF DEATH. | Under 1. | | 1 and under 2. | | 2 to 3 | | 3 to 5. | | 5 to 10. | | 10 to 15. | | 15 to 20. | | 20 to 30. | | 30 to 40. | | 40 to 50. | | 50 to 60. | | 60 to 70. | | 70 to 80. | | 80 to 90. | | 90 and over. | | Age not stated. | | SEX. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | Total. |
| Accidents, Various | 1 | 7 | .. | 2 | 2 | .. | 3 | .. | 2 | 2 | 2 | 1 | 4 | .. | 8 | .. | 2 | .. | 9 | .. | 3 | 1 | 6 | 2 | 1 | 3 | .. | 2 | .. | 1 | 1 | .. | 44 | 21 | 65 |
| " Burns and Scalds. | 1 | .. | .. | 1 | 2 | .. | 1 | 4 | .. | 1 | .. | .. | .. | .. | 1 | 3 | 1 | 1 | .. | .. | 1 | 1 | .. | .. | 1 | .. | .. | 1 | .. | .. | .. | .. | 8 | 12 | 20 |
| " Drowning | .. | .. | .. | .. | 1 | .. | 7 | 2 | 3 | 1 | 4 | 1 | 4 | .. | 6 | 1 | 3 | .. | 3 | .. | 2 | .. | 1 | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | 35 | 6 | 41 |
| " Falls | .. | 1 | 1 | 1 | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 3 | .. | 6 | .. | 3 | .. | 4 | 1 | 1 | 1 | 6 | .. | 2 | .. | .. | .. | .. | .. | 27 | 4 | 31 |
| " Poisoning | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 1 | .. | .. | 1 | .. | 1 | .. | .. | 1 | .. | .. | .. | .. | .. | 5 | 2 | 7 |
| " Railroad | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 2 | .. | .. | .. | 3 | .. | 3 | .. | 1 | .. | 2 | .. | 2 | .. | .. | .. | .. | .. | 2 | .. | 16 | ... | 16 |
| Abscesses | .. | .. | 2 | .. | 1 | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 2 | 1 | 1 | 1 | .. | .. | 4 | .. | 3 | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | 15 | 3 | 18 |
| Adenitis | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | ... | 2 |
| Alcoholism | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 4 | 1 | 5 | 1 | 7 | 4 | 2 | .. | .. | 1 | 1 | 1 | .. | .. | .. | .. | .. | .. | 19 | 8 | 27 |
| Anæmia | 1 | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | .. | .. | .. | 1 | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | 3 | 4 | 7 |
| Aneurism | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 2 | 3 |
| Apoplexy | .. | .. | .. | .. | .. | .. | 3 | 1 | 2 | .. | .. | .. | .. | 1 | .. | 3 | 2 | 5 | 7 | 11 | 16 | 8 | 22 | 19 | 24 | 34 | 9 | 10 | .. | 3 | 1 | 1 | 86 | 96 | 182 |
| Asthenia | .. | 2 | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | 1 | .. | .. | 1 | 1 | 1 | .. | 2 | .. | 2 | .. | 2 | .. | .. | .. | .. | .. | .. | 3 | 12 | 15 |
| Asthma | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | 2 | 1 | 2 | .. | 2 | .. | 1 | .. | .. | .. | .. | 3 | 7 | 10 |
| Asphyxia | .. | 2 | .. | .. | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 5 | 2 | 7 |
| Atelectasis Pulmonum | 3 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 3 | ... | 3 |
| Bladder, Disease of | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | .. | .. | .. | 2 | 1 | 4 | 1 | 3 | .. | .. | .. | .. | .. | .. | .. | 10 | 3 | 13 |
| Bones, Disease of | .. | .. | .. | .. | .. | .. | 1 | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 1 | .. | 2 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 5 | 1 | 6 |
| Bowels, Disease of | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 2 | .. | .. | .. | .. | 1 | 2 | 1 | .. | 1 | 2 | 1 | .. | .. | .. | .. | .. | .. | 7 | 5 | 12 |
| " Intussusception of | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | 2 | 4 |
| Brain, Disease of | 4 | 4 | 1 | 1 | .. | 1 | .. | .. | 1 | 3 | 1 | 1 | 1 | 1 | 1 | .. | 2 | 1 | 3 | 3 | 7 | 2 | 7 | 2 | 3 | 4 | 1 | .. | .. | .. | .. | 1 | 32 | 24 | 56 |

| CAUSES OF DEATH. | Under 1. | | 1 and under 2. | | 2 to 3. | | 3 to 5. | | 5 to 10. | | 10 to 15. | | 15 to 20. | | 20 to 30. | | 30 to 40. | | 40 to 50. | | 50 to 60. | | 60 to 70. | | 70 to 80. | | 80 to 90. | | 90 and over. | | Age not stated. | | SEX. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | Total. |
| Brain, Congestion of | 1 | 1 | 1 | | 1 | | 1 | | | 1 | | 1 | | | | | 1 | | | | | | 2 | 1 | | 1 | 1 | 1 | | | | | 8 | 6 | 14 |
| " Inflammation of | 16 | 11 | 11 | 4 | 4 | 2 | 9 | 3 | 6 | 4 | | | 1 | 2 | | 1 | | | | | | 1 | 3 | | | | | | | | | | 50 | 28 | 78 |
| Bronchitis, Acute | 15 | 20 | 8 | 3 | 2 | | 4 | 1 | 1 | 1 | | | 1 | | 1 | | | | 1 | | 1 | 3 | 3 | 5 | 2 | 4 | 2 | 1 | 1 | | 1 | | 43 | 38 | 81 |
| " Chronic | | | | | | | | | | | | | | | | 1 | | 1 | 1 | | 4 | 1 | 4 | 7 | 5 | 8 | | 3 | 1 | 1 | | | 15 | 22 | 37 |
| Cancer, Various | | | | | 1 | | | | | | | | | | 1 | 1 | 2 | 4 | 2 | 13 | 8 | 13 | 9 | 22 | 3 | 11 | 3 | 1 | | | | | 29 | 65 | 94 |
| " Breast | | | | | | | | | | | | | | | | | | 1 | | 4 | | 3 | | 4 | | 4 | | 2 | | | | | | 18 | 18 |
| " Stomach | | | | | | | | | | | | | | | | | | | 1 | 3 | 3 | 6 | 3 | 1 | 3 | 2 | | | | | | | 10 | 12 | 22 |
| " Uterus | | | | | | | | | | | | | | | | 1 | | 4 | | 7 | | 8 | | 1 | | 1 | | | | | | | | 22 | 22 |
| Cancrum Oris | 2 | 2 | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | 2 | 3 | 5 |
| Carbuncle | | | | | | | | | | | | | | | | | | | | | | | 1 | | | 2 | 1 | | | | | | 2 | 2 | 4 |
| Catarrh | | 3 | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | 5 | 5 |
| Childbirth | | | | | | | | | | | | | | 1 | | 11 | | 11 | | 4 | | | | | | | | | | | | | | 27 | 27 |
| " Puerp'al Conv's | | | | | | | | | | | | | | 3 | | 2 | | 2 | | 1 | | | | | | | | | | | | | | 8 | 8 |
| " Puerperal Fever | | | | | | | | | | | | | | 1 | | 3 | | 6 | | 2 | | | | | | | | | | | | | | 12 | 12 |
| Cholera Infantum | 133 | 126 | 38 | 19 | 6 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | 177 | 148 | 325 |
| " Morbus | | | 1 | | | 1 | | | 1 | 2 | 1 | | | | 1 | | 1 | | 1 | | | 2 | | | 2 | 1 | 3 | | | | | | 11 | 6 | 17 |
| " Sporadic | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 1 |
| Colic | | | | | | | | | | | | | | | 1 | | | | | | | | | | 1 | 1 | | | | | | | 2 | 1 | 3 |
| Consumption | 12 | 10 | 6 | 2 | 3 | 3 | 1 | | 3 | 1 | 2 | 14 | 17 | 53 | 102 | 135 | 71 | 82 | 48 | 50 | 27 | 30 | 17 | 20 | 11 | 12 | 2 | 5 | | | | | 322 | 417 | 739 |
| Convulsions | 44 | 38 | 14 | 10 | 8 | 7 | 3 | 4 | 3 | 2 | | | | 2 | | | | | 1 | 2 | | | 1 | | | | | | | | | | 74 | 65 | 139 |
| Croup | 7 | 3 | 5 | 10 | 9 | 11 | 12 | 7 | 5 | 9 | | | | | 1 | | 1 | | | | | | | | | | | | | | | | 40 | 40 | 80 |
| Cyanosis | 1 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3 | 4 |
| Cystitis | | | | | | | | | | | | | | | 1 | | | 1 | | | 1 | 1 | 1 | | | | 2 | | | | | | 5 | 2 | 7 |
| Debility | 5 | 8 | 5 | 2 | 2 | | | 1 | | 1 | 1 | | | | 2 | | | 2 | 2 | 1 | 2 | 4 | 2 | 4 | 2 | 5 | | | | | | | 23 | 28 | 51 |
| " Infantile | 55 | 51 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 55 | 51 | 106 |

## TABLE IX.—CAUSES OF DEATH, 1884.—Continued.

| CAUSES OF DEATH. | Under 1. | | 1 and under 2. | | 2 to 3. | | 3 to 5. | | 5 to 10. | | 10 to 15. | | 15 to 20. | | 20 to 30. | | 30 to 40. | | 40 to 50. | | 50 to 60. | | 60 to 70. | | 70 to 80. | | 80 to 90. | | 90 and over. | | Age not stated. | | SEX. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | Total. |
| Diabetes | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | 2 | .. | 3 | 4 | .. | 1 | 1 | 4 | 2 | 1 | 2 | 1 | 1 | .. | 1 | .. | .. | .. | .. | 13 | 12 | 25 |
| Diarrhœa | 26 | 29 | 4 | 6 | 1 | .. | 1 | 1 | 1 | .. | .. | .. | 1 | .. | .. | .. | .. | 1 | 1 | 1 | 3 | 1 | 2 | .. | 5 | 2 | 1 | 1 | .. | .. | .. | .. | 46 | 42 | 88 |
| " Chronic | 2 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 3 | .. | 2 | .. | 1 | 4 | 2 | 3 | 5 | .. | 2 | .. | .. | .. | .. | 9 | 16 | 25 |
| Diphtheria | 11 | 7 | 10 | 9 | 6 | 9 | 18 | 14 | 13 | 11 | 2 | .. | 3 | 1 | 1 | 3 | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 65 | 54 | 119 |
| Dropsy | .. | .. | .. | 1 | 2 | .. | 1 | 1 | .. | .. | .. | .. | 1 | 1 | .. | 2 | 3 | .. | 1 | 1 | 2 | 5 | 5 | 2 | 2 | 3 | 3 | 4 | .. | .. | .. | .. | 20 | 20 | 40 |
| Dysentery | 9 | 3 | .. | 1 | .. | 1 | .. | .. | 3 | .. | .. | .. | .. | 1 | .. | 1 | 2 | 2 | .. | 1 | 1 | 2 | 3 | 2 | 1 | 4 | .. | 3 | .. | .. | .. | .. | 19 | 21 | 40 |
| Embolism | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | ... | 2 |
| Enteritis | 6 | 6 | 1 | 2 | .. | .. | 1 | .. | 1 | .. | 1 | 2 | .. | . | 1 | .. | .. | .. | .. | 1 | 2 | .. | 2 | 4 | 1 | 3 | 1 | .. | .. | .. | .. | .. | 17 | 18 | 35 |
| " Colo | 4 | 2 | .. | 1 | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 6 | 3 | 9 |
| " Gastro | 11 | 8 | 1 | .. | 1 | 2 | .. | .. | 1 | 2 | .. | .. | .. | .. | 1 | .. | 1 | 1 | .. | .. | .. | 1 | 1 | .. | .. | 1 | .. | .. | .. | .. | .. | .. | 17 | 15 | 32 |
| Epilepsy | .. | .. | .. | .. | .. | .. | 1 | .. | 2 | .. | .. | .. | .. | .. | 1 | .. | 1 | 1 | .. | 1 | 2 | .. | .. | 1 | .. | .. | .. | .. | .. | .. | 1 | .. | 8 | 3 | 11 |
| Erysipelas | 6 | 1 | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | 2 | 1 | 1 | 1 | 1 | .. | 4 | 1 | .. | 2 | 1 | 1 | 1 | .. | .. | .. | 1 | .. | 17 | 8 | 25 |
| Exposure | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 2 | .. | .. | .. | 2 | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | 7 | 1 | 8 |
| Fever, Unspecified | .. | 1 | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | 3 | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | 4 | 6 |
| " Bilious | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | 2 |
| " Gastric | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | 2 |
| " Malarial | 1 | 1 | .. | .. | .. | 1 | .. | 3 | .. | .. | 2 | .. | 2 | .. | 1 | 4 | 1 | 1 | .. | 2 | 2 | 1 | 1 | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | 11 | 14 | 25 |
| " Typho Malarial | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 1 | .. | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | ... | 4 | 4 |
| " Typhoid | 1 | .. | .. | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 4 | 7 | 9 | 8 | 23 | 15 | 11 | 7 | 3 | 2 | 2 | 6 | 5 | 1 | 3 | 1 | 1 | 2 | .. | .. | .. | 1 | 68 | 58 | 126 |
| Gangrene | .. | 2 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 1 | .. | 2 | 1 | 1 | 1 | 1 | .. | .. | .. | 6 | 4 | 10 |
| Glossitis | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | 2 |
| Gout | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | ... | 1 |
| Heart, Disease of | 3 | 3 | .. | .. | .. | .. | .. | 1 | 1 | 1 | 3 | 1 | 2 | .. | 10 | 14 | 4 | 16 | 11 | 19 | 24 | 18 | 26 | 32 | 29 | 18 | 12 | 18 | .. | 1 | 4 | .. | 129 | 142 | 271 |

| CAUSES OF DEATH. | Under 1. | | 1 and under 2. | | 2 to 3. | | 3 to 5. | | 5 to 10. | | 10 to 15. | | 15 to 20. | | 20 to 30. | | 30 to 40. | | 40 to 50. | | 50 to 60. | | 60 to 70. | | 70 to 80. | | 80 to 90. | | 90 and over. | | Age not stated. | | SEX. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M. | F. | M | F. | M | F. | M. | F. | M. | F. | M. | F. | M | F. | M. | F. | M. | F. | M. | F. | M. | F. | M | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | Total. |
| Heart, Hypertrophy of | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | .. | 1 | .. | .. | .. | .. | 6 | 8 | 14 |
| Heat | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | .. | 2 |
| Hemorrhage | 4 | 5 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 2 | 1 | 2 | 3 | 1 | .. | 1 | 2 | 1 | .. | .. | .. | .. | .. | 12 | 11 | 23 |
| Hernia | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | 2 | .. | 3 | 1 | 2 | .. | 1 | .. | .. | .. | .. | .. | .. | 2 | 9 | 11 |
| Hip Joint, Disease of | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 1 | .. | 2 | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 4 | 1 | 5 |
| Hydrocephalus | 10 | 10 | 3 | 2 | 3 | 1 | 1 | 2 | 4 | 3 | 1 | 2 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 22 | 20 | 42 |
| Inanition | 4 | 3 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | .. | 5 | 4 | 9 |
| Insanity | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | 2 | 3 | 2 | 3 | 5 | 3 | 3 | 2 | .. | 1 | .. | 2 | .. | .. | 4 | 4 | 17 | 19 | 36 |
| Jaundice | 2 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | 2 | 2 | 4 |
| Kidneys, Disease of | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | .. | .. | .. | .. | 2 | 1 | 1 | 6 | 7 | 6 | .. | 3 | 4 | .. | 1 | 3 | 1 | 2 | .. | .. | .. | .. | 16 | 23 | 39 |
| " Bright's Disease of | .. | .. | .. | 1 | .. | .. | .. | .. | 1 | .. | .. | .. | 2 | 1 | 2 | 2 | 4 | 13 | 5 | 5 | 6 | 10 | 8 | 5 | 8 | 4 | 1 | 1 | .. | .. | .. | .. | 37 | 42 | 79 |
| Laryngitis | 1 | .. | .. | 1 | .. | .. | 1 | 1 | .. | .. | .. | .. | .. | 1 | .. | 1 | 1 | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 3 | 5 | 8 |
| Leucocythæmia | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | 2 |
| Liver, Disease of | .. | 1 | .. | 1 | .. | 1 | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 1 | 2 | 2 | 5 | 2 | 3 | 5 | 2 | 5 | 4 | 2 | 1 | .. | .. | .. | 1 | .. | 18 | 21 | 39 |
| " Inflammation of | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 1 | 2 | 1 | 3 | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 5 | 5 | 10 |
| Lungs, Dis. of, Unspecified | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 1 | .. | .. | 2 | .. | 2 | 2 | .. | 1 | .. | .. | .. | .. | .. | .. | 4 | 6 | 10 |
| Malformations | 13 | 3 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 13 | 3 | 16 |
| Malignant Pustule | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | 1 | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | 1 | 3 |
| Malnutrition | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 |
| Marasmus | 36 | 24 | 4 | 3 | 1 | 1 | 2 | 1 | 1 | 1 | .. | .. | .. | .. | .. | .. | 1 | 1 | .. | .. | .. | .. | .. | 1 | 1 | 4 | .. | .. | .. | .. | .. | .. | 46 | 36 | 82 |
| Measles | 3 | 3 | 2 | 2 | 4 | .. | 1 | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | 10 | 8 | 18 |
| Meningitis, Cerebro Spinal | 3 | 2 | 2 | 2 | 1 | 1 | 2 | .. | 3 | 2 | 1 | 1 | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 13 | 8 | 21 |
| " Spinal | .. | 3 | .. | 1 | .. | 1 | 1 | 1 | .. | .. | .. | 1 | .. | 1 | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 9 | 10 |
| " Tubercular | 1 | 1 | 1 | 3 | 1 | 2 | 2 | .. | 1 | 2 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 6 | 8 | 14 |
| Murder | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | .. | 2 |

## TABLE IX.—CAUSES OF DEATH, 1884.—Continued.

| CAUSES OF DEATH. | Under 1. | | 1 and under 2. | | 2 to 3. | | 3 to 5. | | 5 to 10. | | 10 to 15. | | 15 to 20. | | 20 to 30. | | 30 to 40. | | 40 to 50. | | 50 to 60. | | 60 to 70. | | 70 to 80. | | 80 to 90. | | 90 and over. | | Age not stated. | | SEX. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | Total. |
| Nephritis | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | 1 | .. | .. | .. | 1 | .. | .. | 1 | 1 | .. | 1 | .. | .. | .. | .. | 1 | .. | 3 | 4 | 7 |
| Old Age | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | 2 | 31 | 60 | 53 | 95 | 15 | 35 | .. | .. | 101 | 192 | 293 |
| Opiumism | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | ... | 1 | 1 |
| Paralysis | .. | .. | .. | .. | .. | .. | 2 | .. | 1 | .. | .. | .. | .. | .. | 1 | 3 | 4 | 5 | .. | 3 | 3 | 5 | 12 | 15 | 13 | 24 | 10 | 9 | 3 | 1 | .. | 2 | 49 | 67 | 116 |
| Pelvic Hæmatocele | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | ... | 1 | 1 |
| Peritonitis | 2 | .. | .. | .. | 1 | .. | .. | .. | 2 | 2 | 3 | 1 | 1 | 1 | 2 | 5 | 1 | 4 | 1 | 3 | 2 | 2 | 3 | 2 | 1 | .. | 1 | .. | .. | .. | .. | .. | 20 | 20 | 40 |
| Pleurisy | .. | 1 | .. | .. | .. | .. | 1 | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 2 | 3 | 5 |
| Pneumonia | 25 | 24 | 9 | 10 | 1 | 10 | 3 | 4 | 5 | 9 | 1 | 4 | 4 | 7 | 15 | 7 | 12 | 21 | 10 | 14 | 16 | 16 | 29 | 22 | 19 | 16 | 5 | 10 | 1 | 4 | 4 | .. | 159 | 178 | 337 |
| " Cong. of Lungs | 5 | 7 | 1 | 2 | 1 | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 1 | .. | .. | .. | .. | .. | 2 | 1 | 1 | .. | 3 | .. | .. | .. | .. | 8 | 18 | 26 |
| Prostate, Disease of | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 3 | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 4 | ... | 4 |
| Purpura Hemorrhagica | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | ... | 1 | 1 |
| Pyæmia | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | 2 |
| Quinsy | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | 1 | 1 | 2 |
| Rheumatism | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | 1 | 1 | .. | .. | 5 | 2 | 1 | .. | 2 | 2 | 1 | 3 | 5 | 2 | 1 | 3 | 1 | 1 | .. | 1 | .. | .. | 17 | 17 | 34 |
| Scarlatina | 1 | 4 | 5 | 10 | 11 | 10 | 11 | 16 | 9 | 15 | 1 | 2 | .. | .. | 1 | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 39 | 58 | 97 |
| Scrofula | 7 | 2 | .. | 2 | 1 | 1 | 2 | .. | 1 | .. | 1 | 1 | .. | .. | .. | .. | 1 | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 13 | 7 | 20 |
| Septicæmia | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | 1 | .. | 1 | 1 | 1 | .. | 1 | .. | .. | .. | .. | 1 | 1 | .. | .. | .. | .. | .. | 1 | 4 | 7 | 11 |
| Skin, Disease of | .. | 1 | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | 1 | 4 | 5 |
| Spine, Disease of | 1 | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | 2 | .. | .. | 1 | 1 | .. | .. | 2 | 1 | 1 | 2 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 8 | 5 | 13 |
| Stenosis | 3 | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 4 | 1 | 5 |
| Stomach, Disease of | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | .. | 1 | .. | .. | 4 | 2 | 3 | 1 | 1 | 1 | .. | .. | .. | .. | .. | 1 | 8 | 8 | 16 |
| " Inflammation of | 1 | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | 1 | 2 | .. | 3 | 2 | 1 | 1 | 3 | 1 | 2 | 1 | 3 | .. | .. | .. | .. | 8 | 14 | 22 |
| Suicide | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 3 | 1 | 2 | .. | 4 | .. | 7 | .. | 4 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 20 | 2 | 22 |

| CAUSES OF DEATH. | Under 1. | | 1 and under 2. | | 2 to 3 | | 3 to 5. | | 5 to 10. | | 10 to 15. | | 15 to 20. | | 20 to 30. | | 30 to 40. | | 40 to 50. | | 50 to 60. | | 60 to 70. | | 70 to 80. | | 80 to 90. | | 90 and over. | | Age not stated. | | SEX. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | Total. |
| Sunstroke | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | 2 |
| Surgical Operation | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | ... | 1 | 1 |
| Syphilis | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 4 | 3 | 7 |
| " Congenital | 4 | 1 | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 5 | 2 | 7 |
| Tabes Mesenterica | 6 | 3 | .. | 2 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 1 | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 6 | 8 | 14 |
| Teething | 4 | 8 | 5 | 4 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 9 | 12 | 21 |
| Tetanus | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 3 | ... | 3 |
| Trismus Nascentium | 2 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | ... | 2 |
| Thrush | 2 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | ... | 2 |
| Tuberculosis | 2 | 2 | 2 | .. | .. | .. | 1 | .. | .. | 2 | .. | .. | 1 | 2 | 1 | 3 | 2 | 4 | 5 | 1 | 2 | 1 | 2 | .. | 1 | 2 | .. | .. | .. | .. | .. | .. | 19 | 17 | 36 |
| Tumors | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | .. | 2 | 1 | 3 | 1 | 1 | .. | 2 | .. | 1 | .. | .. | .. | .. | 2 | 12 | 14 |
| Ulcers | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 2 | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 4 | ... | 4 |
| Uræmia | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | .. | .. | .. | .. | 1 | 2 | .. | 1 | 1 | .. | .. | 1 | .. | .. | .. | .. | 2 | 6 | 8 |
| Urethra, Stricture of | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 2 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 3 | ... | 3 |
| Uterus, Disease of | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | ... | 1 | 1 |
| Whooping Cough | 7 | 11 | 3 | 9 | 2 | 3 | 4 | 2 | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 17 | 26 | 43 |
| Unknown | 9 | 6 | 1 | 1 | .. | 2 | .. | .. | .. | 1 | .. | 1 | 3 | .. | 2 | 1 | .. | .. | .. | 1 | 2 | 1 | 4 | .. | 1 | 1 | .. | .. | .. | .. | 1 | 4 | 23 | 19 | 42 |

## TABLE X.—CLASSIFICATION AND PERCENTAGE, 1884.

*Showing what part of the Mortality in the whole State, and in each Division, is ascribed to each cause and class of causes.*

| NUMBER OF DEATHS IN EACH DIVISION OF THE STATE. | | | | | | | | | | PERCENTAGE OF DEATHS IN EACH DIVISION. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bristol County. | Kent County. | Newport County, Towns. | Newport City. | Providence County Towns. | Providence City. | Washington County. | Whole State. | CAUSES OF DEATH. | Percentage in the Whole State. | Washington County. | Providence City. | Providence County Towns. | Newport City. | Newport County Towns. | Kent County. | Bristol County. |
| 201 | 275 | 134 | 274 | 1,742 | 2,233 | 282 | 5,141 | All Causes.................. | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| 199 | 268 | 131 | 272 | 1,723 | 2,227 | 279 | 5,099 | Causes Specified............. | ...... | ...... | ...... | ...... | ...... | ...... | ...... | ...... |
| 2 | 7 | 3 | 2 | 19 | 6 | 3 | 42 | Causes not Specified.......... | ...... | ...... | ...... | ...... | ...... | ...... | ...... | ...... |
| | | | | | | | | CLASSES. | | | | | | | | |
| 43 | 49 | 23 | 60 | 404 | 494 | 45 | 1,118 | I. ZYMOTIC DISEASES........ | 21.78 | 15.99 | 22.13 | 23.23 | 21.90 | 17.17 | 17.81 | 21.00 |
| 35 | 65 | 23 | 58 | 369 | 509 | 61 | 1,119 | II. CONSTITUTIONAL DISEASES | 21.80 | 21.68 | 22.66 | 21.23 | 21.08 | 17.17 | 23.64 | 17.50 |
| 88 | 97 | 50 | 98 | 618 | 927 | 104 | 1,982 | III. LOCAL DISEASES.......... | 38.48 | 36.96 | 41.42 | 35.33 | 35.78 | 37.31 | 35.27 | 44.00 |
| 28 | 37 | 24 | 49 | 256 | 206 | 46 | 646 | IV. DEVELOPMENTAL DISEASES | 12.58 | 16.09 | 9.28 | 14.69 | 17.89 | 17.91 | 13.47 | 14.00 |
| 7 | 27 | 14 | 9 | 95 | 98 | 26 | 276 | V. VIOLENCE AND OTHERWISE | 5.36 | 9.28 | 4.51 | 5.52 | 3.35 | 10.44 | 9.81 | 3.50 |
| | | | | | | | | ORDERS. | | | | | | | | |
| | | | | | | | | CLASS I. | | | | | | | | |
| 43 | 45 | 19 | 55 | 378 | 465 | 43 | 1,048 | 1. Miasmatic.................. | 20.36 | 15.27 | 20.74 | 21.73 | 20.08 | 14.19 | 16.35 | 21.00 |
| ... | 3 | 3 | 1 | 13 | 9 | 1 | 30 | 2. Enthetic................. | .62 | .36 | .40 | .75 | .36 | 2.23 | 1.09 | ...... |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ... | 1 | 1 | 4 | 11 | 20 | 1 | 38 | 3. Dietic.... ................ | .76 | .36 | .99 | .63 | 1.46 | .75 | .37 | ..... |
| ... | ... | ... | ... | 2 | ..... | ... | 2 | 4. Parasitic.................. | .04 | ..... | ..... | .12 | ..... | ..... | ..... | ..... |
| | | | | | | | | CLASS II. | | | | | | | | |
| 9 | 25 | 13 | 22 | 82 | 88 | 14 | 253 | 1. Diathetic.................. | 4.99 | 4.96 | 3.92 | 4.74 | 8.02 | 9.70 | 9.10 | 4.50 |
| 26 | 40 | 10 | 36 | 287 | 420 | 47 | 866 | 2. Tubercular................ | 16.81 | 16.72 | 18.74 | 16.49 | 13.06 | 7.47 | 14.54 | 13.00 |
| | | | | | | | | CLASS III. | | | | | | | | |
| 37 | 38 | 22 | 27 | 240 | 270 | 37 | 671 | 1. Dis. of Nervous System..... | 13.02 | 13.20 | 12.08 | 13.67 | 9.77 | 16.42 | 13.85 | 18.50 |
| 6 | 17 | 12 | 14 | 90 | 141 | 13 | 293 | 2. Dis. of Circulatory System.. | 5.68 | 4.65 | 6.29 | 5.14 | 5.21 | 8.95 | 6.20 | 3.00 |
| 18 | 17 | 5 | 22 | 178 | 250 | 27 | 517 | 3. Dis. of Respiratory Organs.. | 10.02 | 9.55 | 11.21 | 10.21 | 8.03 | 3.73 | 6.20 | 9.00 |
| 17 | 8 | 3 | 19 | 48 | 144 | 11 | 250 | 4. Dis. of Digestive Organs.... | 4.92 | 3.89 | 6.41 | 2.76 | 6.84 | 2.24 | 2.92 | 8.50 |
| 8 | 12 | 7 | 14 | 48 | 78 | 11 | 178 | 5. Dis. of Urinary Organs. .... | 3.42 | 3.89 | 3.48 | 2.76 | 5.21 | 5.22 | 4.27 | 4.00 |
| ... | ... | ... | 1 | 3 | 7 | 3 | 14 | 6. Dis. of Reproductive Organs | .27 | 1.06 | .31 | .17 | .36 | ..... | ..... | ..... |
| 2 | 2 | ... | ... | 5 | 22 | 1 | 32 | 7. Dis. of Os. and Locomo.Syst | .63 | .36 | .98 | .28 | ..... | ..... | .74 | 1.00 |
| ... | 3 | 1 | 1 | 6 | 15 | 1 | 27 | 8. Dis. of Integumentary Syst. | .52 | .36 | .66 | .34 | .36 | .75 | 1.09 | ..... |
| | | | | | | | | CLASS IV. | | | | | | | | |
| 4 | 10 | 6 | 13 | 102 | 91 | 9 | 235 | 1. Develop. Dis. of Children .. | 4.58 | 3.18 | 4.16 | 5.84 | 4.75 | 4.48 | 3.65 | 2.00 |
| 1 | 3 | 1 | 2 | 21 | 19 | 4 | 51 | 2. Develop. Dis. of Women.... | .98 | 1.41 | .84 | 1.26 | .74 | .75 | 1.09 | .50 |
| 16 | 20 | 14 | 25 | 106 | 86 | 26 | 293 | 3. Develop. Dis. of Old Age... | 5.69 | 9.21 | 3.83 | 6.06 | 9.12 | 10.44 | 7.27 | 8.00 |
| 7 | 4 | 3 | 9 | 27 | 10 | 7 | 67 | 4. Dis. of Nutrition. Adult,&c. | 1.33 | 2.29 | .45 | 1.53 | 3.28 | 2.24 | 1.46 | 3.50 |
| | | | | | | | | CLASS V. | | | | | | | | |
| 5 | 19 | 7 | 7 | 65 | 76 | 18 | 197 | 1. Accident and Neglect....... | 3.82 | 6.47 | 3.48 | 3.72 | 2.61 | 5.22 | 6.90 | 2.50 |
| ... | ... | ... | ... | 1 | 1 | ... | 2 | 2. Homicide.................. | .04 | ..... | .04 | .06 | ..... | ..... | ..... | ..... |
| ... | 1 | 1 | ... | 6 | 11 | 3 | 22 | 3. Suicide.................... | .43 | 1.06 | .53 | .34 | ..... | .75 | .37 | ..... |
| 2 | 7 | 6 | 2 | 23 | 10 | 5 | 55 | 4. Various.................... | 1.07 | 1.75 | .46 | 1.40 | .74 | 4.47 | 2.54 | 1.00 |
| 43 | 49 | 23 | 60 | 404 | 494 | 45 | 1,118 | CLASS I.—ZYMOTIC. | 21.78 | 15.99 | 22.13 | 23.23 | 21.90 | 17.17 | 17.81 | 21.00 |

## TABLE X.—CLASSIFICATION AND PERCENTAGE, 1884.—Continued.

| NUMBER OF DEATHS IN EACH DIVISION OF THE STATE. | | | | | | | | | | PERCENTAGE OF DEATHS IN EACH DIVISION. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bristol County. | Kent County. | Newport County Towns. | Newport City. | Providence County Towns. | Providence City. | Washington County. | Whole State. | CAUSES OF DEATH. | Percentage in the Whole State. | Washington County. | Providence City. | Providence County Towns. | Newport City. | Newport County Towns. | Kent County. | Bristol County. |
| | | | | | | | | *Order One.—Miasmatic. Dis.* | | | | | | | | |
| ... | ... | ... | 1 | 2 | 1 | ... | 4 | Carbuncle | .08 | ...... | .04 | .12 | .36 | ...... | ...... | ...... |
| ... | ... | ... | ... | 1 | ...... | ... | 1 | Cholera, Sporadic | .02 | ...... | ...... | .06 | ...... | ..... | ...... | ...... |
| 10 | 12 | 2 | 24 | 114 | 144 | 19 | 325 | Cholera Infantum | 6.31 | 6.72 | 6.44 | 6.50 | 8.74 | 1.49 | 4.35 | 5.00 |
| ... | 1 | ... | ... | 9 | 7 | ... | 17 | Cholera Morbus | .33 | ...... | .31 | .51 | ...... | ...... | .36 | ...... |
| 2 | 11 | 1 | 3 | 29 | 34 | ... | 80 | Croup (Pseudo Membranous) | 1.55 | ...... | 1.50 | 1.67 | 1.09 | .74 | 3.99 | 1.00 |
| 8 | 1 | 5 | 4 | 39 | 58 | 4 | 119 | Diphtheria | 2.31 | 1.41 | 2.60 | 2.22 | 1.46 | 3.73 | .36 | 4.00 |
| 10 | 2 | 4 | 2 | 47 | 47 | 1 | 113 | Diarrhœa | 2.20 | .35 | 1.09 | 2.69 | .73 | 2.98 | .72 | 5.00 |
| ... | 3 | 1 | 4 | 19 | 9 | 4 | 40 | Dysentery | .78 | 1.41 | .40 | 1.09 | 1.46 | .74 | 1.08 | ...... |
| ... | 2 | ... | ... | 14 | 9 | ... | 25 | Erysipelas | .49 | ...... | .40 | .79 | ...... | ...... | .72 | ...... |
| ... | ... | ... | 2 | .... | ...... | ... | 2 | Fever, Bilious | .04 | ...... | ..... | ..... | .73 | ...... | ...... | ...... |
| ... | ... | 2 | 2 | 15 | 6 | ... | 25 | Fever, Malarial | .49 | ...... | .27 | .85 | .73 | 1.49 | ...... | ...... |
| 7 | 7 | 3 | 3 | 45 | 52 | 9 | 126 | Fever, Typhoid | 2.45 | 3.18 | 2.33 | 2.57 | 1.09 | 2.23 | 2.54 | 3.50 |
| ... | ... | ... | ... | ..... | 4 | ... | 4 | Fever, Typho-Malarial | .08 | ..... | .18 | ...... | ...... | ...... | ...... | ...... |
| ... | ... | ... | ... | 4 | 2 | ... | 6 | Fever, Unspecified | .12 | ...... | .09 | .23 | ..... | ...... | ..... | ...... |
| ... | ... | ... | ... | 2 | ...... | ... | 2 | Influenza (Epidemic) | .04 | ...... | ..... | .12 | ...... | ...... | ...... | ...... |
| 1 | 6 | 1 | ... | 3 | 7 | ... | 18 | Measles | .35 | ...... | .31 | .17 | ...... | .74 | 2.17 | .50 |
| 5 | ... | ... | 2 | 6 | 28 | 2 | 43 | Pertussis | .83 | .70 | 1.26 | .34 | .73 | ...... | ...... | 2.50 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ... | ... | ... | ... | 1 | ... | ... | 1 | Tonsillitis | .02 | ... | ... | .06 | ... | ... | ... | ... |
| ... | ... | ... | 8 | 28 | 57 | 4 | 97 | Scarlatina | 1.88 | 1.41 | 2.56 | 1.60 | 2.92 | ... | ... | ... |
| | | | | | | | | *Order Two.—Enthetic Dis.* | | | | | | | | |
| ... | ... | ... | ... | 2 | 1 | ... | 3 | Malignant Pustule | .06 | ... | .04 | .12 | ... | ... | ... | ... |
| ... | 3 | 2 | ... | 5 | 2 | 1 | 13 | Septicæmia | .25 | .35 | .09 | .28 | ... | 1.49 | 1.08 | ... |
| ... | ... | 1 | 1 | 6 | 6 | ... | 14 | Syphilis | .27 | ... | .27 | .34 | .36 | .74 | ... | ... |
| | | | | | | | | *Order Three.—Dietic Dis.* | | | | | | | | |
| ... | 1 | ... | 4 | 9 | 12 | 1 | 27 | Alcoholism | .53 | .35 | .54 | .51 | 1.46 | ... | .36 | ... |
| ... | ... | ... | ... | ... | 3 | ... | 3 | Delirium Tremens | .06 | ... | .13 | ... | ... | ... | ... | ... |
| ... | ... | 1 | ... | 2 | 4 | ... | 7 | Inanition | .13 | ... | .18 | .12 | ... | .74 | ... | ... |
| ... | ... | ... | ... | ... | 1 | ... | 1 | Purpura and Scurvy | .02 | ... | .04 | ... | ... | ... | ... | ... |
| | | | | | | | | *Order Four.—Parasitic Dis.* | | | | | | | | |
| ... | ... | ... | ... | 2 | ... | ... | 2 | Apthæ. | .04 | ... | ... | .12 | ... | ... | ... | ... |
| 35 | 65 | 23 | 58 | 369 | 508 | 61 | 1,119 | Class II.—Constitutional. | 21.80 | 21.68 | 22.66 | 21.23 | 21.08 | 17.17 | 23.64 | 17.50 |
| | | | | | | | | *Order One.—Diathetic Dis.* | | | | | | | | |
| ... | ... | ... | ... | ... | 1 | ... | 1 | Gout | .02 | ... | .04 | ... | ... | ... | ... | ... |
| 4 | 3 | 2 | 3 | 18 | 4 | 6 | 40 | Dropsy | .78 | 2.12 | .18 | 1.02 | 1.09 | 1.49 | 1.08 | 2.00 |
| ... | ... | ... | 3 | 3 | 1 | ... | 7 | Anæmia | .14 | ... | .04 | .17 | 1.09 | ... | ... | ... |
| 2 | 14 | 6 | 9 | 26 | 34 | 3 | 94 | Cancer, Various | 1.82 | 1.06 | 1.52 | 1.48 | 3.28 | 4.47 | 5.08 | 1.00 |
| ... | 1 | ... | 2 | 2 | 13 | ... | 18 | Cancer of Breast | .35 | ... | .58 | .12 | .73 | ... | .36 | ... |
| ... | 1 | 1 | 1 | 6 | 12 | 1 | 22 | Cancer of Stomach | .43 | .35 | .54 | .34 | .36 | .74 | .36 | ... |
| ... | 2 | ... | 2 | 7 | 11 | ... | 22 | Cancer of Uterus. | .43 | ... | .49 | .40 | .73 | ... | .72 | ... |
| ... | 2 | 1 | ... | 1 | ... | 1 | 5 | Noma (Canker). | .10 | .35 | ... | .06 | ... | .74 | .72 | ... |
| 2 | ... | 2 | 2 | 4 | ... | ... | 10 | Mortification. | .19 | ... | ... | .23 | .73 | 1.49 | ... | 1.00 |
| 1 | 2 | 1 | ... | 15 | 12 | 3 | 34 | Rheumatism | .66 | 1.06 | .54 | .85 | ... | .74 | .72 | .50 |

## TABLE X.—CLASSIFICATION AND PERCENTAGE, 1884.—Continued.

| NUMBER OF DEATHS IN EACH DIVISION OF THE STATE. | | | | | | | | | | PERCENTAGE OF DEATHS IN EACH DIVISION. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bristol County. | Kent County. | Newport County Towns. | Newport City. | Providence County Towns. | Providence City. | Washington County. | Whole State. | CAUSES OF DEATH. | Percentage in the Whole State. | Washington County. | Providence City. | Providence County Towns. | Newport City. | Newport County Towns. | Kent County. | Bristol County. |
| | | | | | | | | *Order Two.—Tubercular Dis.* | | | | | | | | |
| 4 | 2 | ... | 3 | 20 | 27 | ... | 56 | Scrofula | .94 | ... | 1.20 | 1.14 | 1.09 | ... | .72 | 2.00 |
| ... | ... | ... | ... | 2 | 13 | ... | 15 | Tabes Mesenterica | .28 | ... | .58 | .12 | ... | ... | ... | ... |
| 21 | 37 | 10 | 33 | 248 | 344 | 46 | 739 | Phthisis (Pulmonalis) | 14.34 | 16.28 | 15.43 | 14.13 | 12.04 | 7.46 | 13.43 | 10.50 |
| 1 | 1 | ... | ... | 3 | 36 | 1 | 42 | Hydrocephalus | .81 | .35 | 1.61 | .17 | ... | ... | .36 | .50 |
| ... | ... | ... | ... | 14 | ... | ... | 14 | Tubercular Meningitis | .26 | ... | ... | .79 | ... | ... | ... | ... |
| 88 | 97 | 50 | 98 | 618 | 927 | 104 | 1,982 | CLASS III.—LOCAL. | 38.48 | 36.96 | 41.42 | 35.33 | 35.78 | 37.31 | 35.27 | 44.00 |
| | | | | | | | | *Order One.—Diseases of the Nervous System.* | | | | | | | | |
| 1 | ... | ... | 3 | 18 | 4 | 3 | 29 | Encephalitis | .56 | 1.06 | .18 | 1.02 | ... | ... | ... | .50 |
| ... | 5 | 1 | 6 | 17 | 59 | ... | 88 | Cerebritis | 1.71 | ... | 2.64 | .96 | 1.09 | .74 | 1.81 | ... |
| 11 | 6 | 9 | 6 | 70 | 69 | 11 | 182 | Apoplexy | 3.53 | 3.89 | 3.10 | 4.01 | 2.19 | 6.71 | 2.17 | 5.50 |
| 10 | 8 | 9 | 4 | 38 | 36 | 11 | 116 | Paralysis | 2.25 | 3.89 | 1.62 | 2.16 | 2.19 | 6.71 | 2.90 | 5.00 |
| 2 | 3 | ... | ... | 21 | 9 | 1 | 36 | Insanity | .69 | .35 | .40 | 1.20 | 1.46 | ... | 1.08 | 1.00 |
| ... | ... | ... | ... | 8 | 3 | ... | 11 | Epilepsy | .21 | ... | .13 | .45 | ... | ... | ... | ... |
| ... | ... | 1 | 1 | 1 | 1 | 1 | 5 | Tetanus | .09 | .35 | .04 | .06 | .36 | .74 | ... | ... |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 12 | 2 | 6 | 38 | 65 | 7 | 139 | Convulsions | 2.70 | 2.47 | 2.92 | 2.16 | 2.19 | 1.49 | 4.35 | 4.50 |
| 4 | 4 | ... | 1 | 29 | 24 | 3 | 65 | *Brain Diseases* | 1.26 | 1.06 | 1.06 | 1.67 | .36 | ...... | 1.45 | 2.00 |
| | | | | | | | | *Order Two.—Diseases of the Circulatory System.* | | | | | | | | |
| ... | ... | ... | ... | 1 | 2 | ... | 3 | Aneurism | .06 | ...... | .09 | .06 | ...... | ...... | ...... | ...... |
| 6 | 17 | 12 | 14 | 89 | 139 | 13 | 290 | *Heart Diseases* | 5.63 | 4.60 | 6.21 | 5.07 | 5.11 | 8.95 | 6.17 | 3.00 |
| | | | | | | | | *Order Three.—Diseases of the Respiratory Organs.* | | | | | | | | |
| 1 | ... | ... | 1 | 3 | 6 | ... | 11 | Laryngitis | .21 | ...... | .27 | .17 | .36 | ...... | ...... | .50 |
| 6 | ... | 1 | 6 | 29 | 39 | ... | 81 | Bronchitis, Acute | 1.57 | ...... | 1.74 | 1.66 | 2.19 | .74 | ...... | 3.00 |
| ... | ... | 1 | ... | 13 | 23 | ... | 37 | Bronchitis, Chronic | .72 | ...... | 1.03 | .75 | ...... | .74 | ...... | ...... |
| ... | ... | ... | ... | ..... | 5 | ... | 5 | Pleurisy | .10 | ...... | .22 | ...... | ...... | ...... | ...... | ...... |
| 10 | 13 | 3 | 14 | 125 | 172 | 26 | 363 | Pneumonia | 7.06 | 9.20 | 7.72 | 7.17 | 5.09 | 2.23 | 4.72 | 5.00 |
| 1 | 4 | ... | ... | 1 | 3 | 1 | 10 | Asthma | .19 | .35 | .13 | .06 | ...... | ...... | 1.44 | 50 |
| ... | ... | ... | 1 | 7 | 2 | ... | 10 | *Lung Diseases* | .19 | ...... | .09 | .40 | .36 | ...... | ...... | ...... |
| | | | | | | | | *Order Four.—Diseases of the Digestive Organs.* | | | | | | | | |
| ... | ... | ... | ... | 3 | 21 | 3 | 27 | Gastritis | .53 | 1.06 | .94 | .17 | ...... | ...... | ...... | ...... |
| 7 | 1 | 1 | 10 | 9 | 47 | 1 | 76 | Enteritis | 1.47 | .35 | 2.11 | .51 | 3.65 | .74 | .36 | 3.50 |
| 2 | ... | ... | ... | 11 | 27 | ... | 40 | Peritonitis | .78 | ..... | 1.21 | .62 | ...... | ...... | ...... | 1.00 |
| ... | ... | ... | 1 | 1 | ..... | ... | 2 | Ascites | .04 | ...... | ...... | .06 | .36 | ...... | ...... | ...... |
| ... | ... | ... | ... | 1 | ..... | ... | 1 | Ulceration of Intestines | .02 | ...... | ...... | .06 | ...... | ...... | ...... | ...... |
| ... | ... | ... | 1 | 4 | 5 | 1 | 11 | Hernia | .21 | .35 | .22 | .23 | .36 | ...... | ...... | ...... |
| 1 | 2 | ... | ... | ..... | 4 | 1 | 8 | Ileus | .15 | .35 | .18 | ...... | ...... | ...... | .72 | .50 |
| 1 | ... | ... | ... | 2 | 2 | ... | 5 | Intussusception | .10 | ...... | .13 | .12 | ...... | ...... | ...... | .50 |
| 1 | 1 | 1 | 2 | 4 | 4 | 3 | 16 | *Stomach Diseases* | .31 | 1.06 | .18 | .23 | .73 | .74 | .36 | .50 |
| ... | ... | ... | ... | 5 | 5 | ... | 10 | Hepatitis | .19 | ...... | .22 | .28 | ...... | ...... | ...... | ...... |
| ... | 1 | ... | 1 | 2 | 1 | ... | 5 | Jaundice | .10 | ...... | .04 | .12 | .36 | ...... | .36 | ...... |

## TABLE X.—CLASSIFICATION AND PERCENTAGE, 1884.—Continued.

| Number of Deaths in each Division of the State. | | | | | | | | | | Percentage of Deaths in each Division. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bristol County. | Kent County. | Newport County Towns. | Newport City. | Providence County Towns. | Providence City. | Washington County. | Whole State. | CAUSES OF DEATH. | Percentage in the Whole State. | Washington County. | Providence City. | Providence County Towns. | Newport City. | Newport County Towns. | Kent County. | Bristol County. |
| 5 | 2 | ... | 4 | 1 | 26 | 2 | 40 | *Liver Diseases* | .78 | .70 | 1.17 | .06 | 1.46 | ...... | .72 | 2.50 |
| ... | ... | ... | ... | 1 | 1 | ... | 2 | *Spleen Diseases* | .04 | ...... | .04 | .06 | ...... | ...... | ...... | ...... |
| ... | 1 | 1 | ... | 4 | 1 | ... | 7 | *Bowel Diseases* | .13 | ...... | .04 | .23 | ...... | .74 | .36 | ...... |
| | | | | | | | | *Order Five.—Diseases of the Urinary Organs.* | | | | | | | | |
| ... | ... | 1 | 2 | 5 | 3 | ... | 11 | Nephritis | .21 | ...... | .13 | .28 | .73 | .74 | ...... | ...... |
| 5 | 8 | 4 | 7 | 21 | 29 | 5 | 79 | Nephria (Bright's Disease) | 1.54 | 1.77 | 1.31 | 1.20 | 2.55 | 2.98 | 2.90 | 2.50 |
| ... | 1 | 1 | 1 | 8 | 12 | 2 | 25 | Diabetes | .49 | .70 | .54 | .45 | .36 | .74 | .36 | ...... |
| ... | ... | 1 | 1 | 4 | ..... | 1 | 7 | Cystitis | .13 | .35 | ...... | .23 | .36 | .74 | ...... | ...... |
| ... | ... | ... | 1 | ..... | 3 | ... | 4 | Prostate, Disease of | .08 | ...... | .13 | ...... | .36 | ...... | ...... | ...... |
| ... | 3 | ... | 1 | 7 | 25 | 3 | 39 | *Kidney Diseases* | .77 | 1.06 | 1.12 | .40 | .36 | ...... | 1.08 | ...... |
| 3 | ... | ... | 1 | 3 | 6 | ... | 13 | Bladder, Diseases of | .25 | ...... | .27 | .17 | .36 | ...... | ...... | 1.50 |
| | | | | | | | | *Order Six.—Diseases of the Generative Organs. Female.* | | | | | | | | |
| ... | ... | ... | ... | 2 | 7 | 3 | 12 | Ovarian Dropsy | .23 | 1.06 | .31 | .12 | ...... | ...... | ...... | ...... |
| ... | ... | ... | 1 | 1 | ..... | ... | 2 | *Diseases of Uterus* | .04 | ...... | ...... | .06 | .36 | ...... | ...... | ...... |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | *Order Seven.—Osseous and Locomotory System.* | | | | | | | | |
| 1 | ... | ... | ... | ... | 5 | ... | 6 | Bones, Diseases of | .12 | ... | .22 | ... | ... | ... | ... | .50 |
| ... | 2 | ... | ... | ... | 5 | ... | 7 | *Joint Diseases* | .13 | ... | .22 | ... | ... | ... | .72 | ... |
| 1 | ... | ... | ... | 5 | 12 | 1 | 19 | Vertebræ, Diseases of | .37 | .35 | .54 | .28 | ... | ... | ... | .50 |
| | | | | | | | | *Order Eight.—Integumentary System.* | | | | | | | | |
| ... | 2 | 1 | 1 | 3 | 11 | ... | 18 | Abscesses | .35 | ... | .49 | .17 | .36 | .74 | .72 | ... |
| ... | 1 | ... | ... | ... | 3 | ... | 4 | Ulcer | .08 | ... | .13 | ... | ... | ... | .36 | ... |
| ... | ... | ... | ... | 3 | 1 | 1 | 5 | *Skin Diseases* | .10 | .35 | .04 | .17 | ... | ... | ... | ... |
| 28 | 37 | 24 | 49 | 256 | 206 | 46 | 646 | CLASS IV.—DEVELOPMENTAL. | 12.58 | 16.09 | 9.28 | 14.69 | 17.89 | 17.91 | 13.47 | 14.00 |
| | | | | | | | | *Order One.—Developmental Diseases of Children.* | | | | | | | | |
| 3 | 7 | 5 | 8 | 61 | 15 | 8 | 107 | Debility | 2.08 | 2.83 | .67 | 3.50 | 2.92 | 3.73 | 2.52 | 1.50 |
| ... | 1 | ... | 3 | 4 | 10 | ... | 18 | Debility, Premature Birth | .35 | ... | .45 | .23 | 1.09 | ... | .36 | ... |
| ... | ... | ... | 1 | 3 | 1 | ... | 5 | Cyanosis | .10 | ... | .04 | .17 | .36 | ... | ... | ... |
| 1 | 1 | ... | 1 | 7 | 12 | ... | 22 | Malformations | .43 | ... | .54 | .40 | .36 | ... | .36 | .50 |
| ... | 1 | 1 | ... | 5 | 13 | 1 | 21 | Teething | .41 | .35 | .59 | .28 | ... | .74 | .36 | ... |
| ... | ... | ... | ... | 22 | 40 | ... | 62 | Innutrition | 1.19 | ... | 1.79 | 1.25 | ... | ... | ... | ... |
| | | | | | | | | *Order Two. — Developmental Diseases of Women.* | | | | | | | | |
| 1 | ... | ... | ... | 2 | 1 | ... | 4 | Paramenia | .08 | ... | .04 | .12 | ... | ... | ... | .50 |
| ... | 3 | 1 | 2 | 19 | 18 | 4 | 47 | Childbirth | .91 | 1.41 | .80 | 1.09 | .73 | .74 | 1.08 | ... |
| | | | | | | | | *Order Three.—Developmental Diseases of Old People.* | | | | | | | | |
| 16 | 20 | 14 | 25 | 106 | 86 | 26 | 293 | Old Age | 5.68 | 9.20 | 3.87 | 6.09 | 9.12 | 10.44 | 7.26 | 8.00 |

### TABLE X.—CLASSIFICATION AND PERCENTAGE, 1884.—Continued.

| NUMBER OF DEATHS IN EACH DIVISION OF THE STATE. | | | | | | | | | | PERCENTAGE OF DEATHS IN EACH DIVISION. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bristol County. | Kent County. | Newport County Towns. | Newport City. | Providence County Towns. | Providence City. | Washington County. | Whole State. | CAUSES OF DEATH. | Percentage in the Whole State. | Washington County. | Providence City. | Providence County Towns. | Newport City. | Newport County Towns. | Kent County. | Bristol County. |
| | | | | | | | | *Order Four.—Diseases of Nutrition. Adolescent and Adult.* | | | | | | | | |
| 5 | 1 | 1 | 5 | 5 | 5 | ... | 22 | Atrophy | .43 | ...... | .22 | .28 | 1.82 | .74 | .36 | 2.50 |
| 2 | 3 | 2 | 4 | 22 | 5 | 7 | 45 | Debility | .87 | 2.47 | .22 | 1.25 | 1.46 | 1.49 | 1.08 | 1.00 |
| 7 | 27 | 14 | 9 | 95 | 98 | 26 | 276 | CLASS V.—VIOLENCE AND OTHERWISE. | 5.36 | 9.28 | 4.51 | 5.52 | 3.35 | 10.44 | 9.81 | 3.50 |
| | | | | | | | | *Order One.—Accident or Negligence.* | | | | | | | | |
| ... | 2 | 1 | 2 | 12 | 28 | 4 | 49 | Fractures and Contusions | .95 | 1.41 | 1.25 | .68 | .73 | .74 | .72 | ...... |
| 1 | 4 | ... | ... | 7 | 7 | 1 | 20 | Burns and Scalds | .39 | .35 | .31 | .40 | ...... | ...... | 1.45 | .50 |
| ... | ... | ... | ... | 2 | 3 | 2 | 7 | Poison | .13 | .70 | .13 | .12 | ...... | ...... | ...... | ...... |
| 3 | 2 | 2 | ... | 15 | 14 | 5 | 41 | Drowning | .80 | 1.77 | .62 | .85 | ...... | 1.49 | .72 | 1.50 |
| ... | 3 | ... | ... | 8 | ...... | ... | 11 | Suffocation | .21 | ...... | ...... | .45 | ...... | ...... | 1.08 | ...... |
| 1 | 8 | 4 | 5 | 21 | 24 | 6 | 69 | Otherwise | 1.34 | 2.12 | 1.06 | 1.20 | 1.82 | 2.98 | 2.90 | .50 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ... | ... | ... | ... | 1 | 1 | ... | 2 | *Order Two.—Homicide.* | .04 | ...... | .04 | .06 | ...... | ...... | ...... | ...... |
| ... | 1 | 1 | ... | 6 | 11 | 3 | 22 | *Order Three.—Suicide.* | .43 | 1.06 | .49 | .34 | ...... | .74 | .36 | ...... |
| | | | | | | | | *Order Four.—Various.* | | | | | | | | |
| ... | ... | 3 | ... | 4 | 4 | 2 | 13 | Unclassified.................. | .29 | .70 | .18 | .34 | ...... | 2.23 | ...... | ...... |
| 2 | 7 | 3 | 2 | 19 | 6 | 3 | 42 | Cause not specified........... | .82 | 1.06 | .27 | 1.02 | .73 | 2.23 | 2.52 | 1.00 |

## TABLE XI.—OCCUPATIONS AND AGES AT DEATH, 1884.

*Showing the Average Age, at Death, in the several occupations: Providence City being considered separately and with the State; and ages under twenty being excluded.*

| OCCUPATIONS. | PROVIDENCE CITY. | | | WHOLE STATE. | | |
|---|---|---|---|---|---|---|
| | Number of Decedents. | Aggregate Age. | Average Age. | Number of Decedents. | Aggregate Age. | Average Age. |
| I. AGRICULTURE. | | | | | | |
| Farmers | 11 | 692 | 63.00 | 148 | 10,202 | 68.89 |
| Florists | 2 | 46 | 23.00 | 4 | 184 | 46.00 |
| Gardeners | 4 | 260 | 65.00 | 12 | 810 | 67.58 |
| II. PROFESSIONAL AND PERSONAL SERVICES. | | | | | | |
| Actors | 1 | 29 | 29.00 | 1 | 29 | 29.00 |
| Artisans | 1 | 54 | 54.00 | 2 | 106 | 53.00 |
| Auctioneers | ... | ...... | ..... | 1 | 47 | 47.00 |
| Barbers | 1 | 30 | 30.00 | 3 | 106 | 35.33 |
| Canvasser | ... | ...... | ..... | 1 | 38 | 38.00 |
| Civil Engineers | ... | ...... | ..... | 1 | 56 | 56.00 |
| Clergymen | 2 | 110 | 55.00 | 8 | 493 | 61.62 |
| Clerks and Salesmen | 25 | 925 | 37.00 | 39 | 1,388 | 35.60 |
| Coachmen | 5 | 295 | 59.00 | 7 | 377 | 53.86 |
| Collectors | ... | ...... | ..... | 1 | 42 | 42.00 |
| Cooks | ... | ...... | ..... | 3 | 131 | 43.66 |
| Firemen, | ... | ...... | ..... | 2 | 115 | 57.50 |
| Hostlers | 2 | 88 | 44.00 | 4 | 164 | 41.00 |
| Hotel keepers | 2 | 100 | 50.00 | 4 | 199 | 49.75 |
| Janitors | 2 | 116 | 58.00 | 2 | 101 | 50.50 |
| Journalists | 3 | 133 | 44.33 | 3 | 133 | 44.33 |
| Laborers | 112 | 5,348 | 47.75 | 246 | 11,124 | 45.14 |
| Lamplighter | ... | ...... | ..... | 1 | 43 | 43.00 |
| Lawyers | 1 | 33 | 33.00 | 2 | 71 | 35.50 |
| Letter carriers | 1 | 26 | 26.00 | 1 | 26 | 26.00 |
| Musicians | ... | ...... | ..... | 1 | 39 | 39.00 |
| Music teachers | 1 | 35 | 35.00 | 2 | 74 | 37.00 |
| Physicians | 1 | 76 | 76.00 | 11 | 637 | 57.91 |
| Policemen | 5 | 280 | 56.00 | 5 | 280 | 56.00 |
| Saloon keepers | 4 | 178 | 44.50 | 9 | 424 | 47.11 |
| Stable keepers | 2 | 105 | 52.50 | 3 | 138 | 46.00 |
| Students | 1 | 21 | 21.00 | 1 | 21 | 21.00 |

## TABLE XI.—OCCUPATIONS, 1884.—Continued.

| OCCUPATIONS. | PROVIDENCE CITY. | | | WHOLE STATE. | | |
|---|---|---|---|---|---|---|
| | Number of Decedents. | Aggregate Age. | Average Age. | Number of Decedents. | Aggregate Age. | Average Age. |
| Teachers | ... | ...... | ..... | 6 | 296 | 49.33 |
| Undertakers | 1 | 72 | 72.00 | 1 | 72 | 72.00 |
| Waiters | ... | ...... | ..... | 2 | 46 | 23.00 |
| Watchmen | 2 | 79 | 39.50 | 6 | 335 | 55.83 |
| III. TRADE AND TRANSPORTATION. | | | | | | |
| Agents (traveling) | 2 | 79 | 39.50 | 2 | 79 | 39.50 |
| Apothecaries | 3 | 144 | 48.00 | 3 | 144 | 48.00 |
| Bankers | 1 | 54 | 54.00 | 2 | 104 | 52.00 |
| Book keepers | 7 | 352 | 50.30 | 15 | 651 | 43.40 |
| Boatmen | ... | ...... | ..... | 2 | 103 | 51.50 |
| Brakemen | 4 | 101 | 25.25 | 4 | 101 | 25.25 |
| Brokers | 1 | 50 | 50.00 | 2 | 104 | 52.00 |
| Butchers | 1 | 44 | 44.00 | 7 | 440 | 62.86 |
| Car drivers | 1 | 37 | 37.00 | 1 | 37 | 37.00 |
| Cashiers (bank, &c.) | ... | ...... | ..... | 1 | 65 | 65.00 |
| Collectors | ... | ...... | ..... | 2 | 104 | 52.00 |
| Confectioners | ... | ...... | ..... | 1 | 49 | 49.00 |
| Conductors | 2 | 204 | 68.00 | 3 | 204 | 68.00 |
| Expressmen | ... | ...... | ..... | 3 | 136 | 45.33 |
| Fishermen and oystermen | ... | ...... | ..... | 3 | 101 | 33.66 |
| Grocers | 9 | 457 | 50.77 | 22 | 970 | 44.10 |
| Hackmen | 2 | 102 | 51.00 | 3 | 126 | 42.00 |
| Liquor dealers | 8 | 313 | 39.12 | 10 | 457 | 45.70 |
| Mariners | 1 | 46 | 46.00 | 3 | 117 | 39.00 |
| Marketmen | 1 | 61 | 61.00 | 4 | 233 | 58.25 |
| Merchants | 8 | 492 | 61.50 | 19 | 1,178 | 62.00 |
| Milkmen | ... | ...... | ..... | 1 | 39 | 39.00 |
| Peddlers | 4 | 213 | 53.25 | 7 | 391 | 55.86 |
| Pilots | ... | ...... | ..... | 2 | 121 | 60.50 |
| Porters | 1 | 70 | 70.00 | 1 | 70 | 70.00 |
| Railroad station employés | ... | ...... | ..... | 3 | 162 | 54.00 |
| Sea captains | 4 | 272 | 68.00 | 11 | 783 | 71.18 |
| Seamen, ordinary | 6 | 221 | 36.83 | 6 | 221 | 36.83 |
| Stevedores | 1 | 48 | 48.00 | 2 | 83 | 41.50 |
| Teamsters | 5 | 228 | 45.60 | 15 | 631 | 42.10 |
| Traders and dealers | 2 | 167 | 83.50 | 6 | 372 | 62.00 |

## Table XI.—OCCUPATIONS, 1884.—Continued.

| OCCUPATIONS. | PROVIDENCE CITY. | | | WHOLE STATE. | | |
|---|---|---|---|---|---|---|
| | Number of Decedents. | Aggregate Age. | Average Age. | Number of Decedents. | Aggregate Age. | Average Age. |
| IV. MANUFACTURES, MECHANICAL AND MINING INDUSTRIES. | | | | | | |
| Bakers | 3 | 110 | 36.66 | 3 | 110 | 36.66 |
| Blacksmiths | 13 | 703 | 54.08 | 17 | 935 | 55.00 |
| Bleachers | 2 | 133 | 66.50 | 2 | 133 | 66.50 |
| Block maker | ... | ...... | ..... | 2 | 113 | 56.50 |
| Boat builders | ... | ...... | ..... | 2 | 133 | 66.50 |
| Boot and shoe makers | 7 | 449 | 64.14 | 20 | 1,221 | 61.05 |
| Brass worker | 1 | 51 | 51.00 | 1 | 51 | 51.00 |
| Brush makers | ... | ...... | ..... | 2 | 73 | 36.50 |
| Cabinet makers | 2 | 146 | 73.00 | 4 | 237 | 59.25 |
| Calico printers | 1 | 59 | 59.00 | 1 | 59 | 59.00 |
| Carpenters | 22 | 1,197 | 54.41 | 53 | 2,839 | 53.60 |
| Carriage makers | ... | ...... | ..... | 2 | 113 | 56.50 |
| Cigar makers | 1 | 84 | 84.00 | 4 | 210 | 52.50 |
| Confectioners | ... | ...... | ..... | 3 | 212 | 70.66 |
| Coopers | ... | ...... | ..... | 1 | 72 | 72.00 |
| Coppersmiths | ... | ...... | ..... | 1 | 47 | 47.00 |
| Designers | ... | ...... | ..... | 1 | 54 | 54.00 |
| Die sinkers | 1 | 69 | 69.00 | 2 | 114 | 57.00 |
| Dyers | 3 | 182 | 60.66 | 5 | 252 | 50.40 |
| Engineers | 5 | 312 | 62.50 | 7 | 399 | 57.00 |
| Engravers | 2 | 140 | 70.00 | 3 | 218 | 72.66 |
| Farriers | ... | ...... | ..... | 1 | 49 | 49.00 |
| File cutters | ... | ...... | ..... | 3 | 111 | 37.00 |
| Gas fitters | ... | ...... | ..... | 3 | 122 | 40.66 |
| Harness makers | 1 | 42 | 42.00 | 4 | 197 | 49.25 |
| Icemen | 1 | 71 | 71.00 | 1 | 71 | 71.00 |
| Jewelers | 35 | 1,473 | 42.10 | 43 | 1,750 | 40.70 |
| Machinists | 12 | 667 | 55.57 | 43 | 2,362 | 54.93 |
| Manufacturers | 8 | 519 | 64.87 | 12 | 767 | 64.00 |
| Masons | 7 | 376 | 53.57 | 18 | 1,008 | 56.00 |
| Mechanics | 2 | 109 | 54.50 | 18 | 979 | 54.37 |
| Millers | ... | ...... | ..... | 1 | 79 | 79.00 |
| Millwright | ... | ...... | ..... | 1 | 59 | 59.00 |
| Moulders | 7 | 374 | 53.47 | 13 | 673 | 51.77 |
| Operatives | 23 | 794 | 34.52 | 80 | 3,077 | 38.46 |
| Overseers and superintendents | 5 | 239 | 47.80 | 9 | 539 | 59.90 |
| Painters | 7 | 261 | 37.70 | 22 | 902 | 41.00 |
| Pattern maker | ... | ...... | ..... | 1 | 35 | 35.00 |

## TABLE XI.—OCCUPATIONS, 1884.—Continued.

| OCCUPATIONS. | PROVIDENCE CITY. | | | WHOLE STATE. | | |
|---|---|---|---|---|---|---|
| | Number of Decedents. | Aggregate Age. | Average Age. | Number of Decedents. | Aggregate Age. | Average Age. |
| Paper hangers | ... | ...... | ..... | 1 | 40 | 40.00 |
| Paver | 1 | 55 | 55.00 | 1 | 55 | 55.00 |
| Plumbers | 1 | 20 | 20.00 | 2 | 76 | 38.00 |
| Printers | 6 | 287 | 47.83 | 11 | 509 | 46.27 |
| Roll coverer | 1 | 32 | 32.00 | 4 | 222 | 55.50 |
| Rope makers | 1 | 45 | 45.00 | 2 | 122 | 61.00 |
| Rubber workers | ... | ...... | ..... | 3 | 103 | 34.33 |
| Ship carpenters | ... | ...... | ..... | 1 | 89 | 89.00 |
| Silversmiths | 4 | 165 | 41.25 | 4 | 165 | 41.25 |
| Stone cutters | 5 | 219 | 43.80 | 18 | 806 | 44.77 |
| Stucco workers | 1 | 54 | 54.00 | 1 | 54 | 54.00 |
| Tailors | 7 | 372 | 53.14 | 19 | 1,009 | 53.10 |
| Tinsmiths | 1 | 53 | 53.00 | 1 | 53 | 53.00 |
| Tool makers | ... | ...... | ..... | 1 | 31 | 31.00 |
| Upholsterers | 1 | 27 | 27.00 | 2 | 65 | 32.50 |
| Watch makers | ... | ...... | ..... | 1 | 30 | 30.00 |
| Wheelwrights | 1 | 86 | 86.00 | 1 | 86 | 86.00 |
| V. FEMALES. | | | | | | |
| House keepers | ... | ...... | ..... | 136 | 7,423 | 54.60 |
| Dressmakers and seamstresses | 7 | 199 | 28.43 | 15 | 481 | 32.10 |
| Milliners | ... | ...... | ..... | 1 | 58 | 58.00 |
| Nurses | 1 | 71 | 71.00 | 2 | 117 | 58.50 |
| Operatives | 3 | 71 | 23.66 | 18 | 474 | 26.33 |
| Governess | 1 | 67 | 67.00 | 1 | 67 | 67.00 |
| Servants | 13 | 455 | 35.00 | 28 | 1,401 | 50.00 |
| Tailoresses | 2 | 64 | 32.00 | 4 | 192 | 48.00 |
| Teachers | 7 | 237 | 33.86 | 9 | 338 | 37.55 |

## TABLE XI.—RECAPITULATION BY CLASSES.

| OCCUPATIONS. | PROVIDENCE CITY. | | | WHOLE STATE. | | |
|---|---|---|---|---|---|---|
| | Number of Decedents. | Aggregate Age. | Average Age. | Number of Decedents. | Aggregate Age. | Average Age. |
| I. AGRICULTURE | 17 | 998 | 58.70 | 164 | 11,196 | 68.27 |
| II. PROFESSIONAL AND PERSONAL SERVICES | 175 | 8,132 | 46.47 | 378 | 17,079 | 45.18 |
| III. TRADE AND TRANSPORTATION | 75 | 3,765 | 50.20 | 164 | 8,296 | 50.58 |
| IV. MANUFACTURES, MECHANICAL AND MINING INDUSTRIES | 201 | 9,975 | 49.58 | 471 | 22,825 | 48.46 |
| V. FEMALES | 34 | 1,164 | 34.23 | 213 | 10,484 | 49.22 |
| ALL CLASSES | 502 | 24,035 | 49.87 | 1,390 | 69,880 | 50.20 |

## TABLE XII.—OCCUPATIONS AND CAUSES OF DEATH, 1884.

*Ages under twenty being excluded.*

| OCCUPATIONS. | Whole number of given causes. | Accidents. | Apoplexy and Paralysis. | Aneurism. | Asthma. | Bladder. Diseases of. | Brain, Diseases of. | Bronchitis. | Cancer. | Consumption. | Diabetes. | Diarrhœal Diseases. | Epilepsy. | Erysipelas. | Fevers, Typhoid, &c. | Heart, Diseases of. | Insanity. | Intemperance. | Kidneys, Diseases of. | Laryngitis. | Liver, Diseases of. | Marasmus. | Old Age. | Pneumonia. | Rheumatism. | Spine, Diseases of. | Stomach, Diseases of. | Suicide. | Tuberculosis. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I. AGRICULTURE. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Farmers | 148 | 12 | 26 | .... | 1 | 3 | 2 | 5 | 5 | 8 | 1 | 5 | .... | .... | 4 | 20 | 4 | .... | 4 | .... | 1 | 1 | 27 | 9 | 5 | 1 | .... | 4 | 1 |
| Florists | 4 | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | 2 | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... |
| Gardeners | 10 | .... | 1 | .... | .... | .... | 1 | 1 | .... | 1 | .... | 1 | .... | .... | .... | .... | .... | .... | 1 | .... | 1 | .... | 3 | .... | .... | .... | .... | .... | .... |
| II. PROFESSIONAL AND PERSONAL SERVICES. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Actors | 1 | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Artisans | 2 | .... | .... | .... | 1 | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Auctioneers | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Barbers | 2 | 1 | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Canvassers | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Civil engineers | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Clergymen | 8 | .... | .... | .... | .... | .... | .... | .... | .... | 2 | .... | 2 | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | 2 | .... | .... | .... | .... | 1 | .... |
| Clerks and salesmen | 37 | 1 | .... | .... | .... | .... | 1 | 1 | .... | 16 | .... | 1 | .... | .... | 6 | 5 | 1 | .... | 1 | .... | 1 | .... | .... | 2 | .... | .... | 1 | .... | .... |
| Coachmen | 6 | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | 1 | .... | .... | .... | 2 | .... | .... | .... | .... | .... | .... | .... | 1 | 1 | .... | .... | .... | .... |
| Collectors | 1 | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Commercial traveller | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... |
| Contractor | 2 | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Cooks | 3 | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... |
| Fireman | 2 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... |
| Hostlers | 4 | 1 | 1 | .... | .... | .... | .... | .... | .... | 2 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Hotel keepers | 4 | .... | .... | .... | .... | .... | 1 | .... | .... | 1 | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... |
| Janitors | 2 | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... |
| Journalists | 3 | .... | 1 | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |

## TABLE XII.—OCCUPATIONS AND CAUSES OF DEATH, 1884.—Continued.

| OCCUPATIONS. | Whole number of given causes. | Accidents. | Apoplexy and Paralysis. | Aneurism. | Asthma. | Bladder, Diseases of. | Brain, Diseases of | Bronchitis. | Cancer. | Consumption. | Diabetes. | Diarrhœal Diseases. | Epilepsy. | Erysipelas. | Fevers, Typhoid, &c. | Heart, Diseases of. | Insanity. | Intemperance. | Kidneys, Diseases of. | Laryngitis. | Liver, Diseases of. | Marasmas. | Old Age. | Pneumonia. | Rheumatism. | Spine, Diseases of. | Stomach, Diseases of. | Suicide. | Tuberculosis. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Laborers | 240 | 26 | 18 | 1 | .... | 2 | 5 | 5 | 6 | 56 | 1 | 10 | 1 | 4 | 13 | 20 | 1 | 4 | 7 | .... | 4 | 1 | 17 | 24 | 4 | 2 | 3 | 2 | 3 |
| Lamplighters | 1 | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Lawyers | 2 | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Letter carrier | 1 | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Musicians | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Music teachers | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Physicians | 11 | .... | 1 | .... | .... | .... | 1 | 1 | .... | 2 | 1 | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | 4 | .... | .... | .... | .... | .... |
| Policemen | 4 | 1 | .... | .... | .... | .... | 1 | .... | .... | 1 | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Saloon keepers | 9 | .... | .... | .... | .... | .... | .... | .... | 1 | 3 | .... | .... | .... | .... | .... | .... | .... | 2 | 1 | .... | 1 | .... | .... | 1 | .... | .... | .... | .... | .... |
| Stable keepers | 3 | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | 1 | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Teachers | 6 | .... | .... | .... | .... | 1 | .... | .... | .... | 2 | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 2 | .... | .... | .... | .... | .... |
| Waiters | 2 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Watchmen | 5 | 1 | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | 1 | .... | 1 | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... |
| III. TRADE AND TRANSPORTATION. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Apothecaries | 3 | .... | .... | .... | .... | 1 | .... | .... | .... | 2 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Bankers | 2 | 1 | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Book keepers | 15 | .... | .... | .... | .... | .... | 1 | .... | .... | 7 | .... | .... | .... | .... | .... | 3 | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | 2 | 1 |
| Boatmen | 2 | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... |
| Brakemen | 4 | 1 | .... | .... | .... | .... | .... | .... | .... | 2 | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Brokers | 2 | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Butchers | 6 | .... | 1 | .... | .... | .... | .... | 1 | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | 1 | .... | .... | .... | .... | 1 | .... |
| Car drivers | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Cashiers (bank, &c.) | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Collectors | 2 | .... | .... | .... | .... | 1 | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Confectioners | 1 | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Conductors | 3 | .... | 1 | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Expressmen | 3 | .. | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | 1 | .... | .... | .... | .... | .... |

| OCCUPATIONS. | Whole number of given causes. | Accidents. | Apoplexy and Paralysis. | Aneurism. | Asthma. | Bladder, Diseases of. | Brain, Diseases of. | Bronchitis. | Cancer. | Consumption. | Diabetes. | Diarrhœal Diseases. | Epilepsy. | Erysipelas. | Fevers, Typhoid, &c. | Heart, Diseases of. | Insanity. | Intemperance. | Kidneys, Diseases of. | Laryngitis. | Liver, Diseases of. | Marasmus. | Old Age. | Pneumonia. | Rheumatism. | Spine, Diseases of. | Stomach, Diseases of. | Suicide. | Tuberculosis. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fishermen and oystermen | 3 | 2 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Grocers | 21 | .... | 2 | 1 | 1 | 1 | .... | .... | 1 | 4 | 1 | 1 | .... | .... | 3 | 4 | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 |
| Hackmen | 3 | 1 | .... | .... | .... | 1 | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Liquor dealers | 10 | 1 | .... | .... | .... | .... | .... | .... | .... | 6 | .... | .... | .... | .... | .... | 2 | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Mariners | 3 | 2 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Marketmen | 4 | 1 | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | 1 | .... | .... | .... | .... | .... |
| Merchants | 15 | .... | 1 | .... | .... | .... | 2 | 1 | .... | 2 | .... | .... | .... | .... | 1 | 1 | .... | .... | 2 | .... | .... | .... | 2 | 2 | .... | .... | 1 | .... | .... |
| Milkmen | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 |
| Peddlers | 6 | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 2 | .... | .... | .... | 1 | .... | .... | .... | .... | 1 | 1 | .... | .... | .... | .... |
| Pilots | 2 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... |
| Porters | 1 | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Railroad station agent | 3 | .... | 1 | .... | .... | .... | .... | .... | .... | 1 | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Sea Captains | 9 | .... | 2 | .... | .... | .... | .... | .... | 1 | 1 | .... | .... | .... | .... | .... | 1 | .... | .... | 2 | .... | .... | .... | .... | 1 | .... | .... | .... | .... | 1 |
| Seamen, ordinary | 4 | 2 | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Stevedores | 2 | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Teamsters | 15 | 2 | 2 | .... | .... | .... | .... | .... | .... | 1 | .... | 1 | 1 | .... | 1 | 2 | 1 | .... | .... | .... | .... | .... | .... | 3 | .... | .... | 1 | .... | .... |
| Traders and dealers | 6 | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | 2 | .... | .... | 1 | 1 | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... |
| IV. MANUFACTURES, MECHANICAL AND MINING INDUSTRIES. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bakers | 3 | .... | .... | .... | .... | .... | .... | .... | .... | 2 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... |
| Blacksmiths | 16 | 1 | 3 | .... | .... | .... | .... | .... | .... | 5 | .... | 1 | .... | .... | 1 | 1 | .... | .... | 1 | .... | .... | .... | 1 | 1 | .... | .... | 1 | .... | .... |
| Bleachers | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... |
| Block maker | 2 | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... |
| Boat builders | 2 | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Boot and shoe maker | 19 | 1 | 3 | .... | .... | .... | .... | .... | 3 | 3 | 1 | 1 | .... | .... | 1 | 3 | .... | .... | 1 | .... | .... | .... | 1 | 1 | .... | .... | .... | .... | .... |
| Brass worker | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... |
| Brush makers | 2 | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... |
| Cabinet makers | 4 | 1 | 1 | .... | .... | 1 | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Calico printers | 1 | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Carpenters | 52 | 6 | 6 | 1 | .... | 1 | 3 | 1 | 3 | 9 | .... | 1 | .... | 1 | 2 | 3 | .... | .... | 1 | .... | 2 | .... | 7 | 4 | .... | .... | 1 | .... | .... |

## TABLE XII.—OCCUPATIONS AND CAUSES OF DEATH, 1884.—Continued.

| OCCUPATIONS. | Whole number of given causes. | Accidents. | Apoplexy and Paralysis. | Aneurism. | Asthma. | Bladder, Diseases of. | Brain, Diseases of. | Bronchitis. | Cancer. | Consumption. | Diabetes. | Diarrhoeal Diseases. | Epilepsy. | Erysipelas. | Fevers, Typhoid, &c. | Heart, Diseases of. | Insanity. | Intemperance. | Kidneys, Diseases of. | Laryngitis. | Liver, Diseases of. | Marasmus. | Old Age. | Pneumonia. | Rheumatism. | Spine, Diseases of. | Stomach, Diseases of. | Suicide. | Tuberculosis. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carriage makers | 2 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Cigar makers | 3 | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... |
| Confectioners | 3 | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 |
| Coopers | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... |
| Coppersmiths | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Designers | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Die sinkers | 2 | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Dyers | 5 | 1 | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | 1 | 1 | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... |
| Engineers | 7 | .... | 1 | .... | .... | .... | .... | 1 | .... | 1 | 1 | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | 1 | .... | .... |
| Engravers | 3 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 3 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Farriers | 1 | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| File cutters | 3 | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 2 | .... | .... | .... | .... | .... |
| Gas fitters | 3 | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | 1 |
| Harness makers | 4 | .... | 1 | .... | .... | .... | .... | .... | .... | 1 | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... |
| Icemen | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... |
| Jewelers | 43 | 1 | 1 | .... | 1 | 1 | 3 | 2 | .... | 19 | .... | .... | .... | .... | 2 | 3 | 1 | 2 | 1 | .... | 2 | .... | .... | 1 | .... | .... | 2 | 1 | .... |
| Machinists | 45 | 6 | 6 | .... | .... | 1 | 3 | .... | .... | 13 | .... | .... | .... | 1 | 1 | 4 | 1 | .... | 4 | .... | .... | .... | 4 | .... | 1 | .... | .... | .... | .... |
| Manufacturers | 12 | 2 | 1 | .... | .... | .... | .... | .... | 1 | 1 | 1 | 1 | .... | .... | .... | 3 | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | 1 | .... |
| Masons | 18 | 1 | 1 | .... | .... | .... | 1 | .... | .... | 2 | .... | 1 | .... | .... | 1 | 1 | .... | 1 | 4 | .... | .... | .... | 1 | 1 | .... | 1 | 2 | .... | .... |
| Mechanics | 19 | 4 | 2 | .... | .... | .... | 1 | .... | .... | 3 | .... | .... | .... | .... | .... | 2 | .... | .... | .... | .... | .... | .... | 2 | 2 | .... | .... | 2 | 1 | .... |
| Millers | 1 | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Millwright | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... |
| Moulders | 13 | .... | 2 | .... | .... | .... | .... | 1 | 1 | 5 | .... | 1 | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | 1 | 1 | .... | .... | .... | .... | .... |
| Operatives | 82 | 4 | 5 | .... | 1 | 1 | 1 | 1 | .... | 23 | 1 | 2 | 1 | 1 | 11 | 6 | .... | 1 | 2 | .... | 4 | .... | .... | 6 | 4 | 1 | 2 | 3 | 1 |
| Overseers and Superintendents | 9 | .... | 2 | .... | .... | 1 | .... | .... | 1 | 1 | .... | .... | .... | .... | 1 | 1 | .... | .... | 2 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Painters | 22 | .... | 1 | 1 | .... | .... | 1 | .... | .... | 8 | .... | .... | .... | .... | 1 | .... | .... | 1 | 2 | .... | 1 | 1 | 1 | 2 | .... | .... | .... | 1 | 1 |
| Pattern maker | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Paper hangers | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Plumbers | 2 | 1 | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Printers | 13 | .... | .... | .... | .... | .... | .... | .... | 2 | 4 | .... | .... | .... | .... | .... | 1 | .... | .... | 1 | .... | 1 | .... | .... | 3 | .... | .... | .... | .... | 1 |

| OCCUPATIONS. | Whole number of given causes. | Accidents. | Apoplexy and Paralysis. | Aneurism. | Asthma. | Bladder, Diseases of. | Brain, Diseases of. | Bronchitis. | Cancer. | Consumption. | Diabetes. | Diarrhœal Diseases. | Epilepsy. | Erysipelas. | Fevers, Typhoid, &c. | Heart, Diseases of. | Insanity. | Intemperance. | Kidneys, Diseases of. | Laryngitis. | Liver, Diseases of. | Marasmus. | Old Age. | Pneumonia. | Rheumatism. | Spine, Diseases of. | Stomach, Diseases of. | Suicide. | Tuberculosis. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roll coverer | 4 | 1 | 1 | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Rope makers | 2 | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... |
| Rubber workers | 3 | 1 | .... | .... | .... | .... | .... | .... | .... | 1 | .... | 1 | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Ship carpenters | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... |
| Silversmiths | 4 | .... | .... | .... | .... | .... | .... | .... | .... | 2 | .... | .... | .... | .... | .... | 1 | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Stone cutters | 19 | 2 | 1 | .... | .... | .... | .... | .... | .... | 5 | .... | 1 | .... | .... | 3 | 3 | 1 | .... | .... | .... | .... | .... | .... | 3 | .... | .... | .... | .... | .... |
| Stucco workers | 1 | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Tailors | 19 | 1 | 1 | .... | .... | .... | .... | 1 | .... | 7 | .... | 1 | .... | .... | .... | 1 | .... | .... | 2 | .... | .... | .... | 1 | 3 | .... | .... | .... | 1 | .... |
| Tinsmiths | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... |
| Tool makers | 1 | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Upholsterers | 2 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | 1 | .... | .... |
| Watch makers | 1 | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Wheelwrights | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... |
| V. FEMALES. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| House keepers | 133 | 3 | 12 | .... | 1 | 1 | 1 | 3 | 14 | 30 | 1 | 5 | 1 | 1 | 7 | 12 | 2 | .... | 6 | 1 | 3 | 1 | 15 | 11 | .... | .... | 1 | 1 | 1 |
| Dressmakers and seamstresses | 15 | .... | .... | .... | .... | .... | .... | .... | .... | 8 | .... | 1 | .... | .... | .... | 2 | .... | .... | .... | .... | .... | .... | .... | 4 | .... | .... | .... | .... | .... |
| Milliners | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... |
| Nurses | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Operatives | 18 | 1 | .... | .... | .... | .... | 1 | .... | .... | 13 | .... | .... | .... | .... | 2 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | .... | .... |
| Servants | 28 | .... | 1 | .... | .... | .... | .... | 1 | 3 | 4 | .... | 1 | .... | .... | 3 | 2 | .... | .... | 3 | .... | .... | 1 | 5 | .... | .... | .... | 1 | 1 | 2 |
| Tailoresses | 4 | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... | 1 | .... | .... | 1 | .... | .... | .... |
| Teachers | 9 | .... | .... | .... | .... | .... | .... | .... | 2 | 4 | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | .... | 1 | .... | .... | .... | .... | 1 | .... | .... |

## TABLE XII.—RECAPITULATION BY CLASSES.

| OCCUPATIONS. | Whole number of given causes. | Accidents. | Apoplexy and Paralysis. | Aneurism. | Asthma. | Bladder, Diseases of. | Brain, Diseases of. | Bronchitis. | Cancer. | Consumption. | Diabetes. | Diarrhœal Diseases. | Epilepsy. | Erysipelas. | Fevers, Typhoid, &c. | Heart, Diseases of. | Insanity. | Intemperance. | Kidneys, Diseases of. | Laryngitis. | Liver, Diseases of. | Marasmus. | Old Age. | Pneumonia. | Rheumatism. | Spine, Diseases of. | Stomach, Diseases of. | Suicide. | Tuberculosis. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I. AGRICULTURE | 162 | 12 | 27 | .... | 1 | 3 | 3 | 5 | 5 | 10 | 1 | 6 | .... | .... | 4 | 22 | 4 | .... | 5 | .... | 2 | 1 | 31 | 9 | 5 | 1 | .... | 4 | 1 |
| II. PROFESSIONAL AND PERSONAL SERVICES | 367 | 31 | 21 | 1 | 1 | 5 | 9 | 8 | 9 | 94 | 3 | 19 | 1 | 5 | 24 | 33 | 3 | 7 | 10 | .... | 8 | 1 | 20 | 37 | 5 | 2 | 4 | 3 | 3 |
| III. TRADE AND TRANSPORTATION | 155 | 17 | 15 | 1 | 1 | 4 | 4 | 3 | 2 | 32 | 1 | 6 | 1 | .... | 11 | 19 | 1 | 2 | 7 | .... | 2 | .... | 5 | 10 | 1 | .... | 2 | 4 | 4 |
| IV. MANUFACTURES, MECHANICAL AND MINING INDUSTRIES | 485 | 34 | 41 | 2 | 3 | 6 | 15 | 8 | 14 | 123 | 5 | 14 | 1 | 4 | 28 | 41 | 3 | 6 | 24 | 1 | 15 | 3 | 26 | 34 | 5 | 3 | 12 | 8 | 6 |
| V. FEMALES | 210 | 4 | 14 | .... | 1 | 1 | 2 | 4 | 19 | 59 | 1 | 8 | 1 | 1 | 12 | 17 | 2 | .... | 9 | 1 | 4 | 3 | 21 | 16 | .... | 2 | 3 | 2 | 3 |
| TOTAL | 1,379 | 98 | 118 | 4 | 7 | 19 | 33 | 28 | 49 | 318 | 11 | 53 | 4 | 10 | 79 | 132 | 13 | 15 | 55 | 2 | 31 | 8 | 103 | 106 | 16 | 8 | 21 | 21 | 17 |

# RESULTS AND OBSERVATIONS, 1884.

The whole number of births recorded in the State of Rhode Island, during the year 1884, was seven thousand three hundred and five (7,305); the whole number of marriages was two thousand five hundred and fifty-eight (2,558); and the whole number of deaths was five thousand one hundred and forty-one (5,141).

## TABLE XIII.

*Presenting the General Results of Registration in the State, during each of the last thirty-one years.*

| Year. | Whole Number of Births. | Still-born. | Living Births. | Marriages. | Deaths. |
|---|---|---|---|---|---|
| 1854 | 2,105 | 78 | 2,027 | 1,047 | 1,720 |
| 1855 | 2,926 | 124 | 2,802 | 1,375 | 1,846 |
| 1856 | 2,906 | 183 | 2,723 | 1,535 | 2,042 |
| 1857 | 4,026 | 185 | 3,841 | 1,526 | 2,325 |
| 1858 | 4,263 | 177 | 4,086 | 1,438 | 2,616 |
| 1859 | 4,500 | 177 | 4,323 | 1,672 | 2,270 |
| 1860 | 4,660 | 167 | 4,493 | 1,748 | 2,686 |
| 1861 | 4,840 | 146 | 4,694 | 1,533 | 2,927 |
| 1862 | 4,125 | 123 | 4,002 | 1,450 | 2,591 |
| 1863 | 3,691 | 111 | 3,580 | 1,618 | 3.207 |
| 1864 | 3.892 | 138 | 3,754 | 1,844 | 3,360 |
| 1865 | 3.955 | 177 | 3,778 | 1,896 | 3,405 |
| 1866 | 4,902 | 172 | 4,730 | 2,318 | 2,970 |
| 1867 | 5,127 | 163 | 4,964 | 2,344 | 2,889 |
| 1868 | 5,372 | 212 | 5,160 | 2,285 | 2,912 |
| 1869 | 5,245 | 220 | 5,025 | 2.289 | 3,382 |
| 1870 | 5,215 | 234 | 4.981 | 2,362 | 3,238 |
| 1871 | 5,678 | 223 | 5,455 | 2,336 | 3,344 |
| 1872 | 6,143 | 202 | 5,941 | 2,537 | 4,247 |
| 1873 | 6,022 | 228 | 5,794 | 2,630 | 4,403 |
| 1874 | 6,466 | 277 | 6,189 | 2,541 | 4,229 |
| 1875 | 6,508 | 246 | 6,262 | 2,485 | 4,317 |
| 1876 | 6,329 | 224 | 6,105 | 2,253 | 4,116 |
| 1877 | 6,235 | 242 | 5,993 | 2,282 | 4,450 |
| 1878 | 6,714 | 248 | 6,466 | 2,324 | 4,411 |
| 1879 | 6,350 | 216 | 6,134 | 2,396 | 4,472 |
| 1880 | 6,295 | 192 | 6,103 | 2,769 | 4,829 |
| 1881 | 6,761 | 264 | 6.497 | 2,750 | 5,016 |
| 1882 | 6,825 | 253 | 6,572 | 2,634 | 5,074 |
| 1883 | 7,046 | 253 | 6,793 | 2.611 | 5,282 |
| 1884 | 7,305 | 272 | 7,033 | 2,558 | 5,141 |

During the period of thirty-one years there were recorded, in Rhode Island, 162,427 births, of which number 6,127 were still-born, and 156,300 were living children.

During the same period there were recorded 65,406 marriages, or 130,812 persons married, and 109,747 deaths.

These results show that in every 26.5 births there was one still-born child, or that in every 1,000 births there were 37.7 still-born and 962.3 living children.

The same results also show that the ratio of living births to the whole number of persons married, and to the whole number of decedents, each, during the same period, were as follows:

| | Persons married. | Deaths. |
|---|---|---|
| For every 100 living births there were | 83.7 | 70.2 |

By the Table on the previous page it will also be seen that the number of living births, and of births of the still-born, have each gradually increased during the whole period; that marriages have largely decreased during the last four years; and that the deaths have slowly increased from the first, with occasional recessions.

## TABLE XIV.

## BIRTHS, MARRIAGES AND DEATHS IN RHODE ISLAND, IN 1884, COMPARED WITH THE POPULATION BY THE CENSUS OF 1885.

| TOWNS AND DIVISIONS OF THE STATE. | Population in 1885. | Births in 1884. | To Population one Birth in | Marriages in 1884. | To Population one person Married in | Deaths in 1884. | Of Population one Death in | Deaths to each 1000 of the Population. |
|---|---|---|---|---|---|---|---|---|
| Barrington | 1,394 | 20 | 69.7 | 11 | 63.3 | 16 | 87.1 | 11.4 |
| Bristol | 5,737 | 131 | 43.8 | 33 | 86.9 | 113 | 50.7 | 19.7 |
| Warren | 4,205 | 108 | 38.9 | 35 | 60.0 | 72 | 58.4 | 17.1 |
| Bristol County | 11,336 | 259 | 43.7 | 79 | 71.7 | 201 | 56.3 | 17.7 |
| Coventry | 4,800 | 95 | 50.6 | 19 | 126.3 | 82 | 58.5 | 17.0 |
| East Greenwich | 2,658 | 56 | 47.4 | 29 | 45.8 | 39 | 68.1 | 14.7 |
| West Greenwich | 863 | 18 | 48.0 | 4 | 107.8 | 18 | 47.9 | 20.8 |
| Warwick | 13,284 | 335 | 39.6 | 108 | 61.5 | 136 | 97.6 | 10.2 |
| Kent County | 21,605 | 504 | 42.9 | 160 | 67.5 | 275 | 78.6 | 12.7 |
| Jamestown | 486 | 10 | 48.6 | 1 | 243.0 | 10 | 48.6 | 20.5 |
| Little Compton | 1,057 | 9 | 117.4 | 11 | 48.0 | 16 | 66.0 | 15.1 |
| Middletown | 1,166 | 33 | 35.3 | 2 | 291.5 | 14 | 83.2 | 12.0 |
| New Shoreham | 1,267 | 31 | 40.8 | 12 | 52,7 | 21 | 60.3 | 16.5 |
| Portsmouth | 2,003 | 29 | 69.0 | 5 | 200.3 | 29 | 69.0 | 14.5 |
| Tiverton | 2,702 | 53 | 51.0 | 23 | 58.7 | 44 | 61.4 | 16.3 |
| Towns, Newport County | 8,681 | 165 | 52.6 | 54 | 80.3 | 134 | 64.7 | 15.4 |
| Newport City | 19,552 | 570 | 34.3 | 134 | 72.9 | 274 | 71.3 | 14.0 |
| Burrillville | 5,124 | 115 | 44.5 | 30 | 85.4 | 85 | 60.2 | 16.6 |
| Cranston | *6,109 | 134 | 45.5 | 19 | 160.7 | †109 | 44.9 | 22.3 |
| Cumberland | 7,167 | 174 | 41.1 | 62 | 57.7 | 158 | 45.3 | 22.0 |
| East Providence | 6,809 | 154 | 44.2 | 45 | 75.5 | 105 | 64.8 | 15.4 |
| Foster | 1,397 | 17 | 82.1 | 13 | 53.7 | 24 | 58.2 | 17.2 |
| Glocester | 1,922 | 39 | 49.2 | 20 | 48.0 | 31 | 62.0 | 16.1 |
| Johnston | 7,273 | 170 | 42.7 | 26 | 139.9 | 83 | 87.5 | 11.4 |
| Lincoln | 17,269 | 401 | 43.0 | 160 | 53.9 | 283 | 61.0 | 16.4 |
| North Providence | 1,478 | 24 | 61.5 | 3 | 246.3 | 16 | 92.3 | 10.8 |
| North Smithfield | 3,088 | 74 | 41.7 | 22 | 70.1 | 36 | 85.7 | 11.6 |
| Pawtucket | 22,894 | 557 | 41.1 | 197 | 58.1 | 353 | 63.4 | 15.7 |
| Scituate | 3,607 | 69 | 52.2 | 47 | 38.3 | 58 | 62.2 | 16.0 |
| Smithfield | 2,398 | 62 | 38.7 | 14 | 85.6 | 24 | 99.9 | 10.0 |
| Woonsocket | 16,145 | 447 | 36.1 | 157 | 51.4 | 282 | 57.2 | 17.5 |
| Towns, Providence County | 102,620 | 2,437 | 42.1 | 815 | 62.9 | 1,742 | 58.9 | 17.0 |
| Providence City | 118,070 | 2,956 | 39.9 | 1,144 | 51.6 | 2,233 | 52.8 | 18.9 |
| Charlestown | 1,042 | 25 | 41.6 | 12 | 43.4 | 16 | 65.1 | 15.2 |
| Exeter | 1,083 | 20 | 54.1 | 11 | 49.2 | 18 | 61.7 | 16.2 |
| Hopkinton | 2,796 | 52 | 53.7 | 29 | 48.2 | 24 | 116.5 | 8.6 |
| North Kingstown | 3,869 | 80 | 48.3 | 23 | 84.1 | 50 | 77.3 | 12.9 |
| South Kingstown | 5,516 | 73 | 75.5 | 10 | 275.8 | 52 | 106.0 | 9.4 |
| Richmond | 1,744 | 27 | 64.5 | 39 | 22.3 | 16 | 109.0 | 9.2 |
| Westerly | 6,314 | 137 | 43.8 | 48 | 65.7 | 106 | 59.5 | 16.8 |
| Washington County | 22,364 | 414 | 54.0 | 172 | 65.0 | 282 | 79.3 | 12.6 |
| Whole State | 304,238 | 7,305 | 41.7 | 2,558 | 59.4 | 5,141 | 59.2 | 16.1 |

* Including 1,200 in State Institutions.

† Not including State Institutions.

## BIRTHS. PROPORTION TO POPULATION.

The completion of the State census of the population of Rhode Island, in 1885, enables the compiler of this report to make use of that enumeration in calculating the proportions of the births, marriages and deaths, in each of the towns, to the population of the same respectively.

This enumeration will not be larger, in any of the farming towns, than was the population of those towns in the middle of the year 1884, and, owing to the depletion of the population by the removal of considerable numbers engaged in the many manufacturing industries of the towns, who could find little or no employment, it is doubtful if there are any towns having a larger population, in 1885, than they had in 1884.

It will, therefore, be a fair basis for the proportions given below, and which are derived from Table XIV.

For more extended remarks in relation to proportion of births in Rhode Island, see page 68, Thirty-First Registration Report.

The city of Newport again comes to the front, for the third consecutive year, as showing the largest proportion of births to population in 1884. The whole number, in 1884, was 17 less than in 1883. The proportion to population was one birth to every 34.3 persons. The adjacent town of Middletown followed Newport very closely in the large proportion of births to population, that is, one birth to every 35.3 persons.

The towns following the above, having the largest birth ratios, far as to one in every 40 of the population, or 25 to each thousand inhabitants, are as follows, diminishing in the order named: Woonsocket, 36.1; Smithfield, 38.7; Warren, 38.9; Warwick, 39.6; Providence city, 39.9.

The smallest proportion of births to population occurred in the town of Little Compton, that is, one birth to every 117.4 persons, or about 8.5 in each thousand inhabitants. Following Little Compton, in the smaller ratios, were, Foster, 82.1; South Kingstown, 75.5; and Barrington, 69.7.

The proportions of the several counties, the towns of Providence and Newport counties, the cities of Providence and Newport, and the whole State, are as follows:

| | |
|---|---|
| Bristol County | 22.9 births in every 1,000 of the population. |
| Kent County | 23.3 births in every 1,000 of the population. |
| Newport County Towns | 19.0 births in every 1,000 of the population. |
| Newport City | 29.2 births in every 1,000 of the population. |
| Newport County | 25.8 births in every 1,000 of the population. |
| Providence County Towns | 23.8 births in every 1,000 of the population. |
| Providence City | 25.1 births in every 1,000 of the population. |
| Providence County | 24.4 births in every 1,000 of the population. |
| Washington County | 18.5 births in every 1,000 of the population. |
| Whole State | 24.0 births in every 1,000 of the population. |

### MARRIAGES. PROPORTION TO POPULATION.

The number of marriages in towns of small population are so variable, from year to year, that the proportion to population in any one year would be of no value as an indication of the number of marriageable persons in those towns. Nor does the average of a number of years afford a reliable indication in those towns where there are no churches of those denominations whose votaries so frequently resort to the church for the performance of the marriage ceremony. But in towns of large size, and in cities, the variations from one year to another are very much less. Aggregated in counties the returns from the towns are, however, of sufficient value to furnish reliable statistical data.

The ratio of persons married during the year 1884, to the population in each of the several counties, by the census of 1885, was as follows:

| | |
|---|---|
| Bristol County | One person married in every 71.7 of the population. |
| Kent County | One person married in every 67.5 of the population. |
| Newport County | One person married in every 73.5 of the population. |
| Providence County | One person married in every 56.9 of the population. |
| Washington County | One person married in every 65.0 of the population. |

For the purpose of showing the difference between the aggregate of the county towns and the cities of Providence and Newport, in the same counties, the following summary is presented:

| | |
|---|---|
| Towns, Providence County | One person married in every 62.9 of the population. |
| Providence City | One person married in every 51.6 of the population. |
| Towns, Newport County | One person married in every 80.3 of the population. |
| Newport City | One person married in every 72.9 of the population. |

In the whole State the proportion was one person married in every 59.4 of the population.

The above proportions may be presented in a different way, as follows:

| | |
|---|---|
| Bristol County | 13.9 persons married in every 1,000 of the population. |
| Kent County | 14.8 persons married in every 1,000 of the population. |
| Newport County | 13.6 persons married in every 1,000 of the population. |
| Providence County | 17.6 persons married in every 1,000 of the population. |
| Washington County | 15.4 persons married in every 1,000 of the population. |
| Whole State | 16.8 persons married in every 1,000 of the population. |

## DEATHS. PROPORTION TO POPULATION.

The remarks on a previous page, in relation to the taking of the State census enumeration of 1885 as a basis for computing the percentage of *births* in 1884, will apply equally well in regard to the computation of the percentage of *deaths* during the same year.

The towns having the largest death rate, during the year 1884, were Cranston, with a proportion of 22.3 in every thousand of population; Cumberland, with 22.0 in every thousand; West Greenwich, with 20.8 in every thousand; Jamestown, with 20.5; Bristol, 19.7; and Providence city, with 18.9 in every thousand.

For Jamestown, the proportion is unusual, if not unprecedented.

Among the towns having the smallest death rate are Hopkinton, with 8.6 in every thousand of the population; Richmond, with 9.2; South Kingstown, 9.4; Smithfield, 10.0; Warwick, 10.2; and North Providence, 10.8.

Below may be found a summary of the ratios of mortality, during 1884, in the cities and larger divisions of the State, and the whole State, based upon the census of 1885:

| | |
|---|---|
| Bristol County | 17.7 in each one thousand of the population. |
| Kent County | 12.7 in each one thousand of the population. |
| Towns, Newport County | 15.4 in each one thousand of the population. |
| City of Newport | 14.0 in each one thousand of the population. |
| Newport County | 14.4 in each one thousand of the population. |
| Towns, Providence County | 17.0 in each one thousand of the population. |
| City of Providence | 18.9 in each one thousand of the population. |
| Providence County | 18.0 in each one thousand of the population. |
| Washington County | 12.6 in each one thousand of the population. |
| Whole State | 16.1 in each one thousand of the population. |

The following summary will present, in a condensed form, the proportional results of registration of the different events, in the different cities and counties, during 1884:

| | Births. Of population one in every | Marriages. Of population one person married in every | Deaths. Of population one in every |
|---|---|---|---|
| Bristol County | 43.7 | 71.7 | 56.3 |
| Kent County | 42.9 | 67.5 | 78.6 |
| Newport County | 38.7 | 73.5 | 69.4 |
| Providence County | 40.9 | 56.9 | 55.5 |
| Washington County | 54.0 | 65.0 | 79.3 |
| Newport City | 34.3 | 72.9 | 71.3 |
| Providence City | 39.9 | 51.6 | 52.8 |
| Whole State | 41.7 | 59.4 | 59.2 |

Persons desiring to compare the results of registration during each of the last four years, in any one or in different towns of the State, will find the following Table suited to the purpose:

## TABLE XV.

*Births, Marriages and Deaths in each town in Rhode Island, in each of the four years 1881, 1882, 1883 and 1884.*

| TOWNS AND DIVISIONS OF THE STATE. | Births in 1881. | Births in 1882. | Births in 1883. | Births in 1884. | Marriages in 1881. | Marriages in 1882. | Marriages in 1883. | Marriages in 1884. | Deaths in 1881. | Deaths in 1882. | Deaths in 1883. | Deaths in 1884. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Barrington | 13 | 27 | 21 | 20 | 14 | 8 | 10 | 11 | 15 | 10 | 14 | 16 |
| Bristol | 147 | 143 | 155 | 131 | 51 | 43 | 40 | 33 | 112 | 107 | 116 | 113 |
| Warren | 79 | 89 | 82 | 108 | 56 | 38 | 45 | 35 | 77 | 71 | 72 | 72 |
| BRISTOL COUNTY | 239 | 259 | 258 | 259 | 121 | 89 | 95 | 79 | 204 | 188 | 202 | 201 |
| Coventry | 104 | 105 | 97 | 95 | 32 | 26 | 23 | 19 | 108 | 87 | 81 | 82 |
| East Greenwich | 67 | 58 | 66 | 56 | 49 | 41 | 38 | 29 | 57 | 51 | 57 | 39 |
| West Greenwich | 31 | 21 | 22 | 18 | 7 | 1 | 5 | 4 | 15 | 16 | 11 | 18 |
| Warwick | 263 | 270 | 321 | 335 | 102 | 118 | 107 | 108 | 159 | 161 | 153 | 136 |
| KENT COUNTY | 465 | 454 | 506 | 504 | 190 | 186 | 173 | 160 | 339 | 315 | 302 | 275 |
| Jamestown | 11 | 4 | 5 | 10 | ..... | 2 | 2 | 1 | 7 | 5 | 4 | 10 |
| Little Compton | 9 | 17 | 11 | 9 | 11 | 10 | 8 | 11 | 21 | 20 | 23 | 16 |
| Middletown | 24 | 26 | 16 | 33 | 5 | 8 | 7 | 2 | 15 | 7 | 12 | 14 |
| New Shoreham | 20 | 27 | 32 | 31 | 3 | 5 | 6 | 12 | 19 | 13 | 20 | 21 |
| Portsmouth | 40 | 25 | 29 | 29 | 9 | 11 | 16 | 5 | 25 | 35 | 27 | 29 |
| Tiverton | 52 | 63 | 43 | 53 | 24 | 23 | 21 | 23 | 40 | 39 | 33 | 44 |
| TOWNS, NEWPORT CO | 156 | 162 | 136 | 165 | 52 | 59 | 69 | 54 | 127 | 119 | 119 | 134 |
| NEWPORT CITY | 349 | 501 | 587 | 570 | 117 | 137 | 131 | 134 | 253 | 297 | 311 | 274 |
| Burrillville | 138 | 118 | 100 | 115 | 44 | 34 | 26 | 30 | 79 | 78 | 86 | 85 |
| * Cranston | 123 | 128 | 133 | 134 | 25 | 29 | 22 | 19 | 90 | 109 | 108 | 109 |
| Cumberland | 172 | 149 | 176 | 174 | 62 | 64 | 71 | 62 | 97 | 136 | 146 | 158 |
| East Providence | 124 | 153 | 138 | 154 | 45 | 44 | 53 | 45 | 87 | 82 | 97 | 105 |
| Foster | 15 | 12 | 25 | 17 | 22 | 10 | 17 | 13 | 32 | 16 | 31 | 24 |
| Glocester | 41 | 46 | 49 | 39 | 20 | 17 | 10 | 20 | 49 | 22 | 23 | 31 |
| Johnston | 139 | 154 | 119 | 170 | 27 | 27 | 33 | 26 | 60 | 74 | 47 | 83 |
| Lincoln | 432 | 362 | 391 | 401 | 99 | 115 | 115 | 160 | 318 | 220 | 274 | 283 |
| North Providence | 29 | 22 | 21 | 24 | 1 | 2 | 3 | 3 | 11 | 19 | 17 | 16 |
| North Smithfield | 68 | 65 | 50 | 74 | 33 | 23 | 22 | 22 | 41 | 41 | 37 | 36 |
| Pawtucket | 519 | 457 | 527 | 557 | 236 | 219 | 214 | 197 | 342 | 350 | 390 | 353 |
| Scituate | 71 | 63 | 79 | 69 | 42 | 35 | 37 | 47 | 48 | 51 | 71 | 58 |
| Smithfield | 66 | 40 | 54 | 62 | 28 | 26 | 24 | 14 | 32 | 24 | 27 | 24 |
| Woonsocket | 441 | 457 | 411 | 447 | 176 | 166 | 154 | 157 | 315 | 344 | 311 | 282 |
| TOWNS, PROVIDENCE CO | 2,378 | 2,226 | 2,273 | 2,437 | 860 | 811 | 801 | 815 | †1,681 | †1,666 | †1,707 | †1,742 |
| PROVIDENCE CITY | 2,803 | 2,788 | 2,916 | 2,956 | 1,202 | 1,172 | 1,177 | 1,114 | 2,145 | 2,242 | 2,357 | 2,233 |
| Charlestown | 13 | 18 | 14 | 25 | 14 | 7 | 13 | 12 | 11 | 7 | 12 | 16 |
| Exeter | 20 | 29 | 22 | 20 | 12 | 6 | 17 | 11 | 23 | 18 | 19 | 18 |
| Hopkinton | 62 | 52 | 49 | 52 | 32 | 29 | 34 | 29 | 56 | 40 | 39 | 24 |
| North Kingstown | 99 | 86 | 82 | 80 | 29 | 23 | 23 | 23 | 58 | 55 | 41 | 50 |
| South Kingstown | 85 | 111 | 108 | 73 | 40 | 36 | 35 | 10 | 51 | 57 | 42 | 52 |
| Richmond | 32 | 23 | 23 | 27 | 6 | 4 | 8 | 39 | 26 | 15 | 20 | 16 |
| Westerly | 60 | 116 | 72 | 137 | 75 | 75 | 44 | 48 | 42 | 55 | 48 | 106 |
| WASHINGTON COUNTY | 371 | 435 | 370 | 414 | 208 | 180 | 174 | 172 | 267 | 247 | 221 | 282 |
| WHOLE STATE | 6,761 | 6,825 | 7,046 | 7,305 | 2,750 | 2,634 | 2,611 | 2,558 | 5,016 | 5,074 | 5,282 | 5,141 |

* Exclusive of deaths in State Institutions. † Inclusive of deaths in State Institutions.

## TABLE XVI.

*Showing the proportions of Births, Marriages and Deaths to the population, in the aggregate for the whole State, in each of the last sixteen years.*

| YEARS. | BIRTHS. | | MARRIAGES. | | DEATHS. | | |
|---|---|---|---|---|---|---|---|
| | Number. | Of population one birth in every | Number. | Of population one person married in every | Number. | Of population one death in every | Deaths in every 1,000 of the population. |
| 1869.......... | 5,245 | 41.4 | 2,289 | 47.5 | 3,382 | 64.2 | 15.6 |
| 1870.......... | 5,215 | 41.7 | 2,362 | 46.0 | 3,238 | 67.1 | 14.9 |
| 1871.......... | 5,678 | 38.2 | 2,336 | 46.5 | 3,444 | 65.0 | 15.4 |
| 1872.......... | 6,143 | 35.4 | 2,537 | 42.9 | 4,247 | 51.2 | 19.5 |
| 1873.......... | 6,022 | 36.1 | 2,630 | 41.3 | 4,403 | 49.4 | 20.3 |
| 1874.......... | 6,466 | 39.9 | 2,541 | 50.8 | 4,229 | 61.1 | 16.4 |
| 1875.......... | 6,508 | 39.7 | 2,485 | 52.0 | 4,317 | 59.8 | 16.7 |
| 1876.......... | 6,329 | 40.8 | 2,253 | 57.3 | 4,116 | 62.7 | 15.9 |
| 1877.......... | 6,235 | 41.4 | 2,282 | 56.6 | 4,450 | 58.0 | 17.2 |
| 1878.......... | 6,714 | 38.5 | 2,324 | 55.7 | 4,441 | 58.1 | 17.2 |
| 1879.......... | 6,350 | 43.6 | 2,396 | 57.8 | 4,472 | 61.9 | 16.0 |
| 1880.......... | 6,295 | 43.9 | 2,769 | 49.9 | 4,829 | 57.3 | 17.5 |
| 1881.......... | 6,761 | 40.9 | 2,750 | 50.3 | 5,016 | 55.1 | 18.1 |
| 1882.......... | 6,825 | 40.5 | 2,631 | 52.5 | 5,074 | 54.5 | 18.3 |
| 1883.......... | 7,046 | 39.2 | 2,611 | 52.9 | 5,282 | 52.4 | 19.1 |
| 1884.......... | 7,305 | 41.7 | 2,558 | 59.4 | 5,141 | 59.2 | 16.1 |

The above proportions were computed upon the basis of the last semi-decennial census previous to the year in which the events occurred, except when they occurred in the year in which the census was taken, and in one or two instances when the reports were delayed until after taking the enumeration of the inhabitants in June.

The increase in the number of births, during the last sixteen years, has not kept quite equal pace with the increase of population, although the proportion of the births, in 1884, to the estimated population at the middle of the year (304,238), was exactly the same as in 1870, which was based on the census enumeration of that year. The same causes, however, that now exist to lessen the proportion of births to population, were in existence with equal force at that time.

The subject of birth rate in Rhode Island was considered at some larger extent, in the Thirty-first Registration Report, where a comparison was made with the birth rate of some other countries.

With the ratio of marriage to population there has been a decided diminution, as may be seen in Table XVI.

During the six years from 1869 to 1874, inclusive, the average proportion of persons married was one in every 45.8 of the population, or 21.8 persons married in every 1,000 of the population.

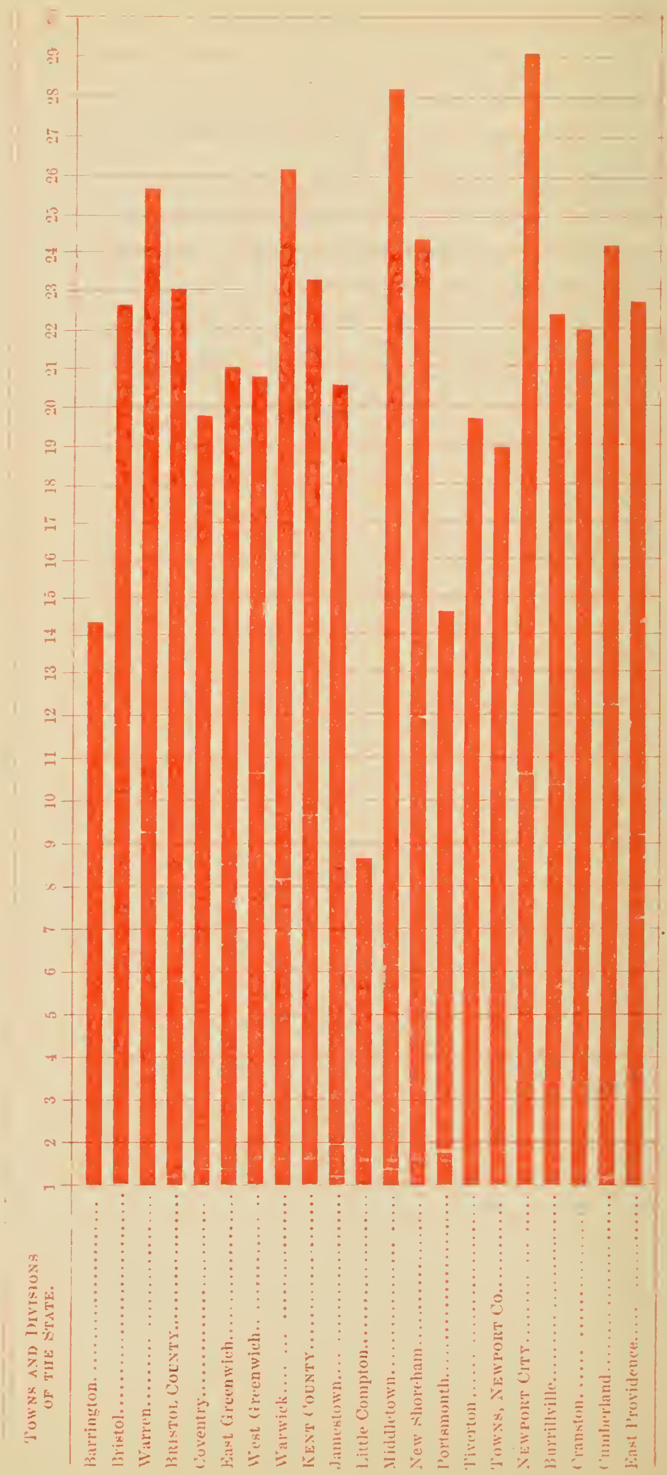
During the six years from 1879 to 1884, inclusive, the average annual proportion of persons married was one in every 53.8 of the population, or 18.2 persons married in every 1,000 of the population.

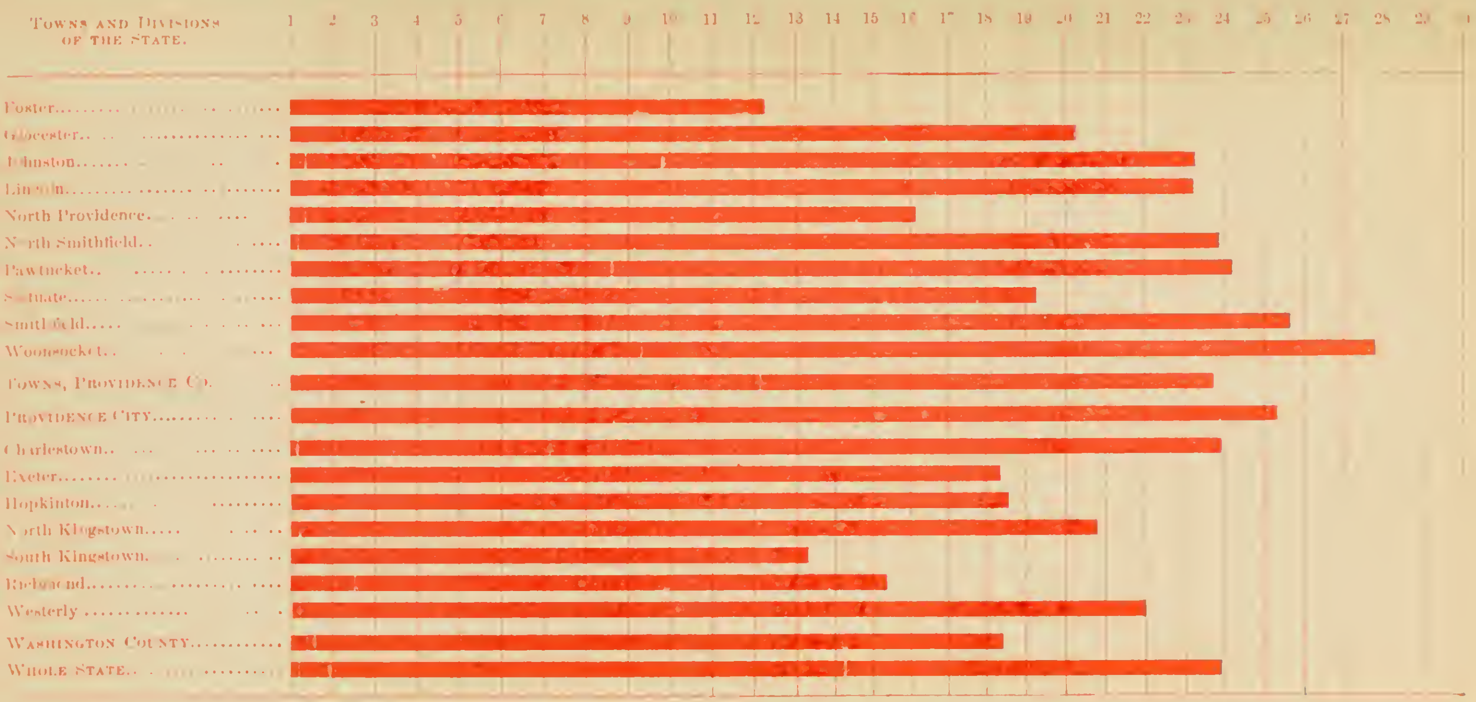
Table XVI also shows that the death rate has apparently increased, although the more complete returns of all the deaths, during later years, will account for part of the increase.

## BIRTH RATES.

*Diagram 1.—Showing the number of births in each 1000 of the population, in each town and each county in the State, during the year 1884, computed by the Census of 1885.*

For explanation see foot note on next page.





The figures at the top of the perpendicular lines indicate, in whole numbers, the number of births during the year in every 1000 persons. The spaces are fractional parts of on For instance, the heavy horizontal line against Barrington reaches across about one-third of the space between the perpendicular lines 14 and 15. It shows the birth rate of Barrington in 1884, was about fourteen and three-tenths in every 1000 of the population, according to the census of 1885.

# BIRTHS, 1884.

The general statistics of births in Rhode Island, during the year 1884, derived from the returns sent to this office, may be found on pages 2 to 6, inclusive, in Tables I, II and III.

The whole number reported is 7,305, as before stated, and is 259 more than that of 1883.

## SEX OF THE CHILDREN BORN.

Of the 7,305 children whose births were reported in 1884, there were 3,713 males and 3,592 females. This gives 103.4 males to each 100 females, or 508.3 males and 491.7 females in each 1,000 children.

The following Table shows the numbers and sex, and the proportions of each sex of the children born in Rhode Island, in each of the last thirty-one years:

### TABLE XVII.

| Years. | Males. | Females. | Males to each 100 Females. | Males. | Females. |
|---|---|---|---|---|---|
| 1854 | 1,081 | 1,003 | 107.8, or | 518.7 and | 481.3 in each 1000 |
| 1855 | 1,492 | 1,421 | 105.0, or | 512.2 and | 487.8 in each 1000 |
| 1856 | 1,479 | 1,407 | 105.1, or | 512.5 and | 487.5 in each 1000 |
| 1857 | 2,057 | 1,948 | 105.6, or | 513.6 and | 486.4 in each 1000 |
| 1858 | 2,200 | 2,053 | 107.2, or | 517.3 and | 482.7 in each 1000 |
| 1859 | 2,209 | 2,097 | 105.3, or | 513.0 and | 487.0 in each 1000 |
| 1860 | 2,263 | 2,212 | 102.3, or | 505.7 and | 494.3 in each 1000 |
| 1861 | 2,531 | 2,291 | 110.5, or | 524.9 and | 475.1 in each 1000 |
| 1862 | 2,152 | 1,967 | 109.4, or | 522.5 and | 477.5 in each 1000 |
| 1863 | 1,892 | 1,288 | 105.8, or | 514.1 and | 485.9 in each 1000 |
| 1864 | 1,949 | 1,942 | 100.3, or | 500.9 and | 499.1 in each 1000 |
| 1865 | 2,096 | 1,857 | 112.9, or | 530.2 and | 469.8 in each 1000 |
| 1866 | 2,546 | 2,356 | 108.0, or | 519.4 and | 480.6 in each 1000 |
| 1867 | 2,665 | 2,464 | 107.0, or | 518.7 and | 481.3 in each 1000 |
| 1868 | 2,745 | 2,627 | 104.5, or | 511.0 and | 489 0 in each 1000 |
| 1869 | 2,685 | 2,560 | 104.9, or | 511.9 and | 488.1 in each 1000 |
| 1870 | 2,679 | 2,536 | 105.6, or | 513.7 and | 486 3 in each 1000 |
| 1871 | 2,878 | 2,800 | 102.8, or | 506.9 and | 493.1 in each 1000 |
| 1872 | 3,085 | 3,058 | 100.9, or | 502.2 and | 497.8 in each 1000 |
| 1873 | 3,135 | 2,887 | 108.6, or | 520.6 and | 479.4 in each 1000 |
| 1874 | 3,311 | 3,155 | 104.9, or | 512.1 and | 487.9 in each 1000 |
| 1875 | 3,362 | 3,146 | 106.9, or | 516.6 and | 483.4 in each 1000 |
| 1876 | 3,291 | 3,038 | 108,3, or | 520.0 and | 480.0 in each 1000 |
| 1877 | 3,163 | 3,072 | 103.0, or | 507.3 and | 492.7 in each 1000 |
| 1878 | 3,402 | 3,312 | 102.7, or | 506.7 and | 493.3 in each 1000 |
| 1879 | 3,259 | 3,091 | 105.4, or | 513 2 and | 486.8 in each 1000 |
| 1880 | 3,241 | 3,054 | 106.8, or | 514.8 and | 485.2 in each 1000 |
| 1881 | 3,498 | 3,263 | 107.2, or | 517.3 and | 482.7 in each 1000 |
| 1882 | 3,509 | 3,316 | 105.8, or | 514.1 and | 485.9 in each 1000 |
| 1883 | 3,548 | 3,498 | 101.4, or | 503.5 and | 496.5 in each 1000 |
| 1884 | 3,713 | 3,592 | 103.4, or | 508.3 and | 491.7 in each 1000 |

Of the 259 children born in 1884 in excess of the number born in 1883, one hundred and sixty-five were males, and ninety-four were females. The excess of males over the previous year was greater than for several years. The number of female births was scarcely more than half the excess of that of the year 1883 over the previous year.

There is no regularity governing the difference of increase of births from year to year, in relation to sex, except that there is always a preponderance of males.

## PROPORTION OF THE SEXES.

In Table II, on pages 4 and 5, may be found the number of the children born in the different divisions of the State during the year, and in the several months of the year, with the number of each sex respectively.

The following Table will present, in a more concise manner, the whole number of children of each sex, and of both sexes, in each division, whose births were recorded during 1884, and also the number of males to each 100 females in the same :

### TABLE XVIII.

| BIRTHS, 1884. | Bristol County. | Kent County. | Newport County Towns. | Providence County Towns. | Washington County. | Newport City. | Total. | Providence City. | Whole State. |
|---|---|---|---|---|---|---|---|---|---|
| Males | 133 | 266 | 84 | 1,234 | 206 | 270 | 2,193 | 1,520 | 3,713 |
| Females | 126 | 238 | 81 | 1,203 | 208 | 300 | 2,156 | 1,436 | 3,592 |
| Total | 259 | 504 | 165 | 2,437 | 414 | 570 | 4,349 | 2,956 | 7,305 |
| Males to each 100 Females | 105.5 | 111.7 | 103.7 | 102.5 | 99.0 | 90.0 | 101 7 | 105.8 | 103.4 |

The difference in the proportion of the sexes born in Providence city and the rest of the State is noticeable, and more particularly the proportions in Kent county.

These differences are, however, very much less than have occurred during some years, as may be seen by Table XIX.

The following Table shows the proportions of the sexes, born during each of the last twenty-two years, in each of the larger divisions of the State, and in the whole State :

## TABLE XIX.

NUMBER OF MALES TO EACH 100 FEMALES.

| BIRTHS. | Bristol County. | Kent County. | Newport County. | Providence County Towns. | Providence City. | Washington County. | Whole State. |
|---|---|---|---|---|---|---|---|
| 1863 | 120.0 | 98.4 | 97.0 | 101.8 | 111.4 | 108.7 | 105.8 |
| 1864 | 106.8 | 87.3 | 90.6 | 107.4 | 97.3 | 103.4 | 100.3 |
| 1865 | 119.3 | 118.2 | 108.8 | 118.9 | 113.8 | 88.1 | 112.9 |
| 1866 | 109.4 | 113.1 | 103.4 | 104.9 | 108.4 | 124.0 | 108.0 |
| 1867 | 115.5 | 98.3 | 117.8 | 106.3 | 104.5 | 120.4 | 107.7 |
| 1868 | 117.4 | 88.7 | 100.2 | 101.6 | 102.4 | 136.5 | 104.5 |
| 1869 | 115.7 | 116.7 | 102.7 | 98.0 | 107.5 | 120.6 | 104.9 |
| 1870 | 126.4 | 111.6 | 100.0 | 105.1 | 104.9 | 99.5 | 105.6 |
| 1871 | 131.8 | 97.9 | 132.5 | 100.8 | 95.2 | 113.3 | 102.8 |
| 1872 | 109.2 | 92.8 | 109.1 | 103.5 | 95.7 | 110.6 | 100.9 |
| 1873 | 129.2 | 113.0 | 117.9 | 104.5 | 109.0 | 104.7 | 108.6 |
| 1874 | 98.7 | 111.9 | 101.3 | 110.4 | 102.9 | 94.0 | 104.9 |
| 1875 | 95.2 | 103.1 | 97.7 | 104.3 | 109.1 | 134.3 | 106.9 |
| 1876 | 142.1 | 104.4 | 108.5 | 108.0 | 106.8 | 103.7 | 108.3 |
| 1877 | 138.7 | 102.4 | 98.5 | 100.3 | 104.9 | 95.3 | 103.0 |
| 1878 | 120.5 | 120.6 | 94.8 | 101.5 | 106.8 | 78.8 | 102.7 |
| 1879 | 124.3 | 95.5 | 103.6 | 105.4 | 105.7 | 106.3 | 105.4 |
| 1880 | 117.2 | 110.5 | 113.0 | 102.4 | 107.6 | 95.4 | 106.1 |
| 1881 | 91.2 | 111.3 | 102.0 | 105.9 | 109.0 | 115.7 | 107.2 |
| 1882 | 94.7 | 110.2 | 112.5 | 103.1 | 106.5 | 105.7 | 105.8 |
| 1883 | 94.0 | 97.6 | 97.0 | 103.5 | 102.2 | 102.2 | 101.4 |
| 1884 | 105.5 | 111.7 | 92.9 | 102.5 | 105.8 | 99.0 | 103.4 |

The following summary will show the number of males to each 100 females, born during the twenty-two years from 1863 to 1884, in the different divisions of the State:

| | |
|---|---|
| Bristol County | 115.1 males to each 100 females. |
| Kent County | 104.9 males to each 100 females. |
| Newport County | 105.1 males to each 100 females. |
| Providence County Towns | 101.6 males to each 100 females. |
| Providence City | 105.3 males to each 100 females. |
| Washington County | 107.7 males to each 100 females. |
| Whole State | 105.3 males to each 100 females. |

## BIRTHS AND SEASON.

In Table II, on pages 4 and 5 of this report, may be found the whole number of births as they occurred in the different months, and in the different divisions of the State, during 1884.

An examination of that Table will show that the largest number of births in any one month, was in the month of December, and the largest number, in any quarter of the year, was in the third quarter.

This last circumstance is not in accordance with the rule of thirty-one years of registration. The last quarter has almost invariably given the largest number of births.

The following Table shows the total number of children born in the State of Rhode Island, according to the returns, in each quarter of each of the last six years; and also the aggregate number and the percentage of the aggregate of each quarter in the last thirty-one years, from 1854 to 1884, inclusive:

### TABLE XX.

| QUARTERS. | 1884. | 1883. | 1882. | 1881. | 1880. | 1879. | 1854 to 1884, inc. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Number. | Per cent. |
| January—March | 1,734 | 1,641 | 1,616 | 1,534 | 1,521 | 1,465 | 38,448 | 23.67 |
| April—June | 1,755 | 1,668 | 1,622 | 1,661 | 1,483 | 1,556 | 38,304 | 23.58 |
| July—September | 1,868 | 1,893 | 1,711 | 1,746 | 1,640 | 1,653 | 42,457 | 26.14 |
| October—December | 1,948 | 1,844 | 1,876 | 1,820 | 1,651 | 1,676 | 43,218 | 26.61 |
| Whole year | 7,305 | 7,046 | 6,825 | 6,761 | 6,295 | 6,350 | 162,427 | 100.00 |

By the above Table it will be seen that, according to the registration of thirty-one years, the average proportions of births in the different quarters of the year were as follows:

January—March..................236.7 in every 1,000 births.
April—June..................235.8 in every 1,000 births.
July—September..................261.4 in every 1,000 births.
October—December..................266.1 in every 1,000 births.

During the last three months of the year the average was about thirty more, in every thousand births, than in either the first or second three months, and scarcely five more in a thousand than in the third quarterly period.

The proportions of the births, in the different quarters of the year 1884, were as follows :

| | | |
|---|---|---|
| January—March | 23.74 per cent., or | 237.4 in every 1,000 |
| April—June | 24.03 per cent., or | 240.3 in every 1,000 |
| July—September | 25.57 per cent., or | 255.7 in every 1,000 |
| October—December | 26.66 per cent., or | 266.6 in every 1,000 |
| | 100.00 | 1,000.0 |

First six months ........................................477.7 births in every one thousand.

Second six months........................................522.3 births in every one thousand.

### BIRTHS : SEX AND SEASON.

In Table II, on pages 4 and 5, will also be found the number of births of each sex, by months, as they occurred in the different divisions of the State, during the year 1884. From it we ascertain the number of each of the sexes born during each quarter of the year, with their relative proportions ; and also the aggregates and proportions of the same for the whole State.

The following Table will present a summary of the quarterly periods, number of births and proportions of the sexes, for the same :

| | Males. | Females. | Males to each 100 Females. | Males. | Females. |
|---|---|---|---|---|---|
| 1. January—March | 858 | 876 | 98.1, or | 49.4 and | 50.6 in each 100 |
| 2. April—June | 925 | 830 | 111.4, or | 52.7 and | 47.3 in each 100 |
| 3. July—September | 955 | 913 | 104.6, or | 51.1 and | 48.9 in each 100 |
| 4. October—December | 975 | 973 | 100.2, or | 50.0 and | 50.0 in each 100 |
| Whole year, 1884 | 3,713 | 3,592 | 103.4, or | 50.8 and | 49.2 in each 100 |

The following Table shows the number of male children born to each 100 female children, in each quarter of the last five years, and also the proportion of births of male children to each 100 female children born, during three periods of five years each, from 1866 to 1880, inclusive :

## TABLE XXI.

| YEARS. | 1884. | 1883. | 1882. | 1881. | 1880. | 5 years, 1876–1880. | 5 years, 1871–1875. | 5 years, 1866–1870. |
|---|---|---|---|---|---|---|---|---|
| First Quarter | 98.1 | 98.6 | 105.6 | 113.5 | 109.7 | 106.0 | 101.5 | 106.7 |
| Second Quarter | 111.4 | 98.7 | 106.1 | 100.6 | 98.2 | 102.7 | 104.7 | 107.3 |
| Third Quarter | 104.6 | 107.5 | 107.4 | 107.8 | 103.4 | 107.1 | 104.8 | 106.0 |
| Fourth Quarter | 100 1 | 100.2 | 104.4 | 106.6 | 113.0 | 108.2 | 106.5 | 104.8 |
| Total average | 103.4 | 101.4 | 105.8 | 107.2 | 106.1 | 106.2 | 104.2 | 106.2 |

By the foregoing Table and summary it would appear that season has but very little influence in the causation of sex, or of any considerable difference in the number of births of either sex.

The following summary will show the proportions of the sexes born in the State in each quarter of the year, in the aggregate of a period of twenty years:

| | Males to each 100 Females. | | Males. | | Females. | |
|---|---|---|---|---|---|---|
| 1. January—March | 105.8, | or | 514.1 | and | 485.9 | in every 1,000 births. |
| 2. April—June | 106.4, | or | 515.5 | and | 484.5 | in every 1,000 births. |
| 3. July—September | 104.3, | or | 508.5 | and | 491.5 | in every 1,000 births. |
| 4. October—December | 106.4, | or | 515.5 | and | 484.5 | in every 1,000 births. |
| Whole Number, 20 years | 105.6, | or | 513.7 | and | 486.3 | in every 1,000 births. |

### PARENTAGE.

By reference to Table I, page 2, in the division of births, there will be found the parentage of the children born in Rhode Island, during the year 1884. It will be seen that of the whole number—7,305—there were 3,064 of American parentage, 2,987 foreign, and 1,254 of mixed parentage.

By mixed parentage is meant the children born of American fathers and foreign mothers, and of foreign fathers and American mothers. Of American fathers there were 567, and of foreign fathers 687.

The following Table will show the number and parentage of the children born in the State, and the variations of the same from year to year, in each of the last five years; and also the number and variations occurring in five periods of five years each, from 1858 to 1882, inclusive:

### Table XXII.

| PARENTAGE. | 1884. | 1883. | 1882. | 1881. | 1880. | 5 years. 1878 to 1882. | 5 years. 1873 to 1877. | 5 years. 1868 to 1872. | 5 years. 1863 to 1867. | 5 years. 1858 to 1862. |
|---|---|---|---|---|---|---|---|---|---|---|
| Amer. fath. and mo.. | 3,064 | 2,944 | 2,915 | 2,859 | 2,741 | 14,169 | 13,431 | 12,214 | 9,712 | 10,609 |
| Foreign fath. and mo. | 2,987 | 2,930 | 2,788 | 2,798 | 2,555 | 13,562 | 13,990 | 12,366 | 9,968 | 9,697 |
| Amer. fath. for. mo.. | 567 | 575 | 512 | 493 | 417 | 2,327 | 1,782 | 1,353 | 876 | 814 |
| For. fath. Amer. mo . | 687 | 597 | 610 | 611 | 582 | 2,887 | 2,357 | 1,720 | 941 | 755 |
| Parentage not stated. | ...... | ...... | ...... | ...... | ...... | ........ | ........ | ........ | 70 | 223 |
| Total............... | 7,305 | 7,046 | 6,825 | 6,761 | 6,295 | 32,945 | 31,560 | 27,653 | 21,567 | 22,098 |

The following Table of *percentages* may show in a different and perhaps clearer way, the changes that have occurred in the proportions of the births in the different classes of parentage during the last five years, and during twenty-five years, from 1858 to 1882, inclusive, in five equal periods:

### Table XXIII.

| PARENTAGE. | 1884. | 1883. | 1882. | 1881. | 1880. | 5 years. 1878 to 1882. | 5 years. 1873 to 1877. | 5 years. 1868 to 1872. | 5 years. 1863 to 1867. | 5 years. 1858 to 1862. |
|---|---|---|---|---|---|---|---|---|---|---|
| Amer. fath. and mo.. | 41.94 | 41.78 | 42.71 | 42.29 | 43.55 | 43.03 | 42.55 | 44.17 | 45.18 | 48.50 |
| Foreign fath. and mo. | 40.90 | 41.58 | 40.85 | 41.38 | 40.60 | 41.23 | 44.35 | 44.72 | 46.37 | 44.33 |
| Amer. fath. for. mo.. | 7.76 | 8.16 | 7.50 | 7.29 | 6.62 | 6.95 | 5.84 | 4.89 | 4.07 | 3.72 |
| For. fath. Amer. mo . | 9.40 | 8.48 | 8.94 | 9.04 | 9.23 | 8.79 | 7.26 | 6.22 | 4.38 | 3.45 |
| Total............... | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

The changes in the birth rates of the two general classes of population in Rhode Island, that is, of foreign born and native American born, and also of the intermixture by marriage in the two classes, during a period of twenty-seven years, are shown in the two preceding Tables.

The increase of the proportions of births of children of mixed parentage will be noticed, those of American father and foreign mother having more than doubled, and those of foreign father and American mother having nearly trebled.

In addition to Tables XXII and XXIII, the following Table will show the percentages of children born of American and of foreign born fathers, and of American and foreign born mothers, in each of the last five years, and in each of five periods of five years each, from 1858 to 1882, inclusive:

### TABLE XXIV.

| CHILDREN WITH | 1884. | 1883. | 1882. | 1881. | 1880. | 5 years. 1878 to 1882. | 5 years. 1873 to 1877. | 5 years. 1868 to 1872. | 5 years. 1863 to 1867. | 5 years. 1858 to 1862. |
|---|---|---|---|---|---|---|---|---|---|---|
| American fathers..... | 49.70 | 49.94 | 50.21 | 49.58 | 50.17 | 50.08 | 48.40 | 49.06 | 49.25 | 52.22 |
| Foreign fathers ...... | 50.30 | 50.06 | 49.79 | 50.42 | 49.83 | 49.92 | 51.60 | 50.94 | 50.75 | 47.78 |
| American mothers ... | 51.35 | 50.26 | 51.65 | 51.33 | 52.78 | 51.79 | 49.80 | 50.39 | 49.56 | 51.95 |
| Foreign mothers..... | 48.65 | 49.74 | 48.35 | 48.67 | 47.22 | 48.21 | 50.20 | 49.61 | 59.44 | 48.05 |

It will be observed that of the children born, in 1884, there were more who had foreign fathers than there were of those who had American fathers. If, now, the number of children born of parents who were themselves children of foreign born parents were added, and so comprising all of foreign parentage, the proportion of children of that class, born in 1884, would be very much larger than shown in Table XXIV.

## BIRTHS OF COLORED CHILDREN.

The number of births of children of colored parentage reported for the year 1884 is 185. They are always included in the general statistics of births, but for various reasons they have had a separate consideration. The number is smaller by 12 than that of 1883.

In regard to sex, the numbers and proportions were as follows, viz.: Males, 91, females, 94; or 48.1 males to 51.9 females in every 100 births; or 96.8 males to each 100 females.

The following summary will show the changes that have occurred from year to year, in the proportions of the sexes of colored children born in Rhode Island, during the last nine years:

| Years. | Whole Number. | Males. | Females. | |
|---|---|---|---|---|
| 1876 | 171 | 64 | 107 | or 59.8 males to each 100 females. |
| 1877 | 168 | 86 | 82 | or 104.8 males to each 100 females. |
| 1878 | 172 | 79 | 93 | or 85.0 males to each 100 females. |
| 1879 | 159 | 84 | 75 | or 113.5 males to each 100 females. |
| 1880 | 140 | 75 | 65 | or 115.4 males to each 100 females. |
| 1881 | 192 | 101 | 91 | or 111.0 males to each 100 females. |
| 1882 | 179 | 76 | 103 | or 73.7 males to each 100 females. |
| 1883 | 197 | 100 | 97 | or 103.1 males in each 100 females. |
| 1884 | 185 | 91 | 94 | or 96.8 males to each 100 females. |

Table XXV will exhibit the number of births of colored children in the several towns and counties, during 1884:

## TABLE XXV.

*Showing Number, Sex, &c., of Colored Births, 1884.*

| TOWNS AND CITIES. | Whole Number. | Males. | Females. | COUNTIES. |
|---|---|---|---|---|
| Barrington | 1 | | 1 | |
| Bristol | 1 | | 1 | Bristol County 2 |
| Coventry | 1 | | 1 | |
| East Greenwich | 5 | 1 | 4 | |
| Warwick | 6 | 4 | 2 | Kent County 12 |
| New Shoreham | 1 | 1 | | |
| Newport City | 42 | 22 | 20 | Newport County 43 |
| Cranston | 2 | 1 | 1 | |
| East Providence | 1 | | 1 | |
| Johnston | 1 | | 1 | |
| North Smithfield | 1 | | 1 | |
| Pawtucket | 3 | 2 | 1 | |
| Providence City | 114 | 58 | 56 | Providence County 122 |
| Exeter | 1 | 1 | | |
| Hopkinton | 1 | | 1 | |
| South Kingstown | 2 | 1 | 1 | |
| Westerly | 2 | | 2 | Washington County 6 |
| Total | 185 | 91 | 94 | 185 |

## NUMBER OF CHILD OF THE MOTHER.

The following Table shows the number of the child of the mother; that is, how many of the children born were reported as the first, second, or third child, etc., of their respective mothers. The statistics on this subject begin with the year 1857, and the following Table includes the children reported in 1882, 1883 and 1884, and also the total for twenty-five years, 1857 to 1881, inclusive:

### TABLE XXVI.

| NUMBER OF THE CHILD OF THE MOTHER. | 1882. | 1883. | 1884. | 25 years. 1857-1881. |
|---|---|---|---|---|
| First | 1,704 | 1,764 | 1,847 | 31,735 |
| Second | 1,189 | 1,365 | 1,356 | 26,110 |
| Third | 989 | 1,026 | 1,087 | 20,468 |
| Fourth | 805 | 822 | 777 | 15,423 |
| Fifth | 628 | 614 | 643 | 11,491 |
| Sixth | 481 | 443 | 472 | 8,330 |
| Seventh | 365 | 343 | 374 | 5,837 |
| Eighth | 245 | 245 | 269 | 3,996 |
| Ninth | 171 | 169 | 187 | 2,624 |
| Tenth | 93 | 106 | 103 | 1,711 |
| Eleventh | 56 | 64 | 81 | 984 |
| Twelfth | 50 | 37 | 49 | 602 |
| Thirteenth | 30 | 23 | 32 | 308 |
| Fourteenth | 12 | 9 | 16 | 151 |
| Fifteenth | 2 | 7 | 5 | 91 |
| Sixteenth | 4 | 2 | 0 | 49 |
| Seventeenth | 0 | 6 | 4 | 29 |
| Eighteenth | 1 | 1 | 2 | 8 |
| Nineteenth | 0 | 0 | 0 | 5 |
| Twentieth | 0 | 0 | 1 | 3 |
| Twenty-first | 0 | 0 | 0 | 3 |
| Twenty-second | 0 | 0 | 0 | 2 |
| Total | 6,825 | 7,046 | 7,305 | 129,960 |

There was a larger proportion of births of the first child of the mother, during 1884, than for several previous years, and larger than the average of sixteen years. There was, also, a very largely increased proportion of births of the eleventh child of the mother.

There has been an increase of births, during the last four or five years, of children who were the eleventh, twelfth and thirteenth child of the mother, an increase considerably greater in proportion than the increase of population. The increase even extends to those of mothers who have had more than thirteen children.

The proportion of each class to the whole number will be shown by the following Table, which gives the percentage of the children born in each of the last six years, who were respectively the first, second, third, etc., children of the mothers, and which will also give the average percentage of each class of births, during a period of ten years, from 1868 to 1877, inclusive, and of five years, 1878 to 1882, inclusive:

TABLE XXVII.

| NUMBER OF THE CHILD. | 1884. | 1883. | 1882. | 1881. | 1880. | 1879. | 5 years. 1878 to 1882. | 10 years. 1868 to 1877. |
|---|---|---|---|---|---|---|---|---|
| First | 25.28 | 25.03 | 24.96 | 22.92 | 23.50 | 22.59 | 23.1 | 25.2 |
| Second | 18.56 | 19.37 | 17.42 | 19.31 | 17.84 | 18.80 | 18.7 | 20.7 |
| Third | 14.88 | 14.56 | 14.50 | 15.10 | 16.11 | 15.87 | 16.9 | 15.5 |
| Fourth | 10.64 | 11.66 | 11.80 | 12.07 | 12.24 | 12.74 | 12.2 | 11.4 |
| Fifth | 8.80 | 8.71 | 9.17 | 9.35 | 9.23 | 9.33 | 9.1 | 8.4 |
| First to Fifth | 78.16 | 79.33 | 77.85 | 78.75 | 78.92 | 79.33 | 80.0 | 81.1 |
| Sixth and over | 21.84 | 20.67 | 22.15 | 21.25 | 21.08 | 20.67 | 20.0 | 18.9 |
| Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

## PLURALITY BIRTHS.

The general statistics in relation to plural births, in Rhode Island, may be found on page 6, in Table III.

There were ninety-one cases during the year, all of which were twins, or one hundred and eighty-two children.

Of the 182 children of plural births, 87 were males, and 95 were females.

The cases occurred in the different divisions of the State as follows: Bristol county, 2; Kent county, 3; Newport county towns, 1; Newport city, 17; Providence county towns, 21; Providence city, 43; Washington county, 4.

The following exhibit will show the parentage of children of plurality birth in Rhode Island, in 1884, and number of each:

| | |
|---|---|
| Parents, Native American, or born in the United States | 50 |
| “ born in Ireland | 46 |
| “ “ France, or French Canadians | 12 |
| “ “ England | 6 |
| “ “ Scotland | 10 |
| “ “ Germany | 4 |
| “ “ Sweden | 8 |
| “ “ British America | 2 |
| “ “ Brazil | 2 |
| “ “ Spain | 2 |
| “ “ Italy | 2 |
| American father and Irish mother | 12 |
| American father and English mother | 4 |
| American father and French mother | 2 |
| Scotch father and Irish mother | 2 |
| Scotch father and American mother | 4 |
| Irish father and American mother | 6 |
| Irish father and English mother | 2 |
| Irish father and Welsh mother | 2 |
| English father and American mother | 2 |
| British American father and Irish mother | 2 |
| Total | 182 |

The months in which the plurality births occurred were as follows:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| January | 14 | April | 14 | July | 14 | October | 16 |
| February | 12 | May | 14 | August | 12 | November | 26 |
| March | 8 | June | 16 | September | 12 | December | 24 |
| First Quarter | 34 | Second Quarter | 44 | Third Quarter | 38 | Fourth Quarter | 66 |

First half of year.....78 Second half of year.....104

Total.....182

The general statistics of births, and number of cases reported in Rhode Island during a period of thirty-one years, that is, from 1854 to 1884, inclusive, are as follows:

| | | | |
|---|---|---|---|
| 158,970 | cases of single births | giving 158,970 | children. |
| 1,700 | cases of twin births | giving 3,400 | children. |
| 19 | cases of triple births | giving 57 | children. |
| 160,689 | cases of child birth | giving 162,427 | children. |

Of the whole number of cases of child-birth (160,689) during the thirty-one years, one in 94.5 produced twins, and one in 8,457 produced triplets.

Of the whole number of children born, during the same period (162,427), ascertained from the reports, one in every 47.8 was a twin, and one in every 2,850 was a triplet.

Of the 1,719 cases of plurality births which have occurred in the State during the last thirty-one years, there were 729 cases in which both parents were American; 823 cases in which both parents were foreign; 159 cases in which the parentage was mixed, that is, one American and one foreign parent; and 8 in which the parentage was not stated.

The whole number of children born in plurality cases, during the thirty-one years, was 3,457, of whom 1,733 were males, and 1,720 were females; the sex of the remaining four was not given.

## STILL-BORN.

The whole number of still-born children reported in Rhode Island, for the year 1884, was 272; this number is 19 more than for the years 1883 and 1882, and 8 more than for 1881.

The following are the numbers reported from the different divisions of the State:

| | |
|---|---|
| Bristol County | 11 |
| Kent County | 6 |
| Newport County Towns | 3 |
| Newport City | 18 |
| Providence County Towns | 65 |
| Providence City | 164 |
| Washington County | 5 |
| Whole State | 272 |

The following Table will give the number in each town from which still-births were reported:

## Table XXVIII.

*Still-Born, 1884. Locality, Number, Sex, Parentage and Color.*

| TOWNS AND DIVISIONS OF THE STATE. | Whole Number. | SEX. | | PARENTAGE. | | COLOR. | |
|---|---|---|---|---|---|---|---|
| | | Males. | Females. | *American. | *Foreign. | White. | Colored. |
| Bristol | 7 | 4 | 3 | 7 | ........ | 6 | 1 |
| Warren | 4 | 3 | 1 | 2 | 2 | 4 | ........ |
| Bristol County | 11 | 7 | 4 | 9 | 2 | 10 | 1 |
| Coventry | 4 | 3 | 1 | 4 | ........ | 4 | ........ |
| East Greenwich | 2 | 1 | 1 | 1 | 1 | 2 | ........ |
| Kent County | 6 | 4 | 2 | 5 | 1 | 6 | ........ |
| Tiverton | 3 | 2 | 1 | ........ | 3 | 3 | ........ |
| Towns, Newport County | 3 | 2 | 1 | ........ | 3 | 3 | ........ |
| Newport City | 18 | 16 | 2 | 11 | 7 | 15 | 3 |
| Burrillville | 4 | 2 | 2 | 3 | 1 | 4 | ........ |
| Cranston | 3 | 2 | 1 | ........ | 3 | 3 | ........ |
| Cumberland | 4 | 3 | 1 | 1 | 3 | 4 | ........ |
| East Providence | 3 | 3 | ........ | 1 | 2 | 3 | ........ |
| Foster | 1 | ........ | 1 | 1 | ........ | 1 | ........ |
| Johnston | 6 | 3 | 3 | 2 | 4 | 6 | ........ |
| Lincoln | 8 | 4 | 4 | 2 | 6 | 8 | ........ |
| Pawtucket | 20 | 10 | 10 | 11 | 9 | 20 | ........ |
| Scituate | 4 | 2 | 2 | 3 | 1 | 4 | ........ |
| Woonsocket | 12 | 7 | 5 | 3 | 9 | 12 | ........ |
| Towns, Providence County | 65 | 36 | 29 | 27 | 38 | 65 | ........ |
| Providence City | 164 | 110 | 54 | 79 | 85 | 155 | 9 |
| Charlestown | 3 | 1 | 2 | 2 | 1 | 3 | ........ |
| South Kingstown | 1 | 1 | ........ | 1 | ........ | 1 | ........ |
| Westerly | 1 | 1 | ........ | 1 | ........ | 1 | ........ |
| Washington County | 5 | 3 | 2 | 4 | 1 | 5 | ........ |
| Whole State | 272 | 178 | 94 | 135 | 137 | 259 | 13 |

---

* By mothers.

*Sex.*—Of the still-born children which were among the births during 1883, the number of each sex was equal within one. That very unusual event is scarcely likely to occur again. The rule has been a very large preponderance of the male sex.

During 1884 the proportions were more in accordance with the rule of more than thirty years. The excess of males was, however, in much larger proportion than the average of the long term, that is, 178 males and 94 females, or 190 males to each 100 females, or 53 females to each 100 males.

*Parentage.*—There were 135 still-born children in 1884, of American parents, and 137 of foreign parents. The proportion is more nearly equal than usual.

Owing to some illegitimate still-born, the parentage is reckoned by the mothers.

*Color.*—The number of colored still-born was 13, as against 14 in 1883.

*Season.*—The number of still-born children reported in each of the several months of 1884 was as follows:

| | | | | | |
|---|---|---|---|---|---|
| January | 22 | May | 21 | September | 16 |
| February | 23 | June | 24 | October | 24 |
| March | 21 | July | 26 | November | 27 |
| April | 23 | August | 17 | December | 28 |
| | | Total | 272 | | |

SUMMARY OF STILL-BORN.

The following Table shows the number and sex of the still-born children whose births were reported in Rhode Island, during each of the last six years, and also of a period extending from January 1, 1854, to December 31, 1884:

### TABLE XXIX.

| SEX. | 1884. | 1883. | 1882. | 1881. | 1880. | 1879. | January 1, 1854, to Dec. 31, 1884. |
|---|---|---|---|---|---|---|---|
| Males | 178 | 132 | 138 | 169 | 123 | 124 | 3,675 |
| Females | 94 | 121 | 115 | 95 | 69 | 92 | 2,552 |
| Total | 272 | 253 | 253 | 261 | 192 | 216 | 6,227 |

It will be seen that the whole number of still-births reported in the State, since January 1, 1854, is 6,227. Of the sex of this number, there were 3,675 males, and 2,552 females. The ratio of occurrence, in regard to sex, would therefore be as follows: In each 100 children there were about 59 males, and 41 females; or for every 100 females there were nearly 150 males.

*Season of Still-Births.*—The following summary will show the number of still-births that have been reported, in Rhode Island, during a period of thirty-one years, from 1854 to 1884, inclusive, with the months and quarters in which they occurred:

STILL-BORN—THIRTY-ONE YEARS, 1854-1884.—SEASON.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| January | 548 | April | 479 | July | 531 | October | 480 |
| February | 524 | May | 480 | August | 633 | November | 520 |
| March | 482 | June | 468 | September | 509 | December | 573 |
| First Quarter | 1,554 | Second Quarter | 1,427 | Third Quarter | 1,673 | Fourth Quarter | 1,573 |

First six months, 2,981; Second six months, 3,246; Total, 6,227.

Taking the quarterly periods, it will be seen that the occurrence of still-births, in the order of from the smallest to the largest number, has been as follows: 1st, Second quarter; 2d, First quarter; 3d, Fourth quarter; 4th, Third quarter. In accordance with the general birth rate, the last half of the year has considerably the largest proportion.

## PARENTAGE OF THE STILL-BORN.

Of the 272 still-born children reported in 1884, there were 132 of American, and 133 of foreign parentage, reckoned by the nativity of the fathers, that is, the father's name given; and 135 of American and 137 of foreign, reckoned by the nativity of the mothers.

To show the changes that have occurred from year to year in the percentages of parentage of *the still-born,* reckoning by the parentage of the mothers, in contrast with the percentages of the same nativities to the *whole number of births,* reckoned by the parentage of the father, the following resumé, for various years and periods of years, is presented:

| Years. | Of Whole Number Births. | Of Whole Number Still-Born. |
|---|---|---|
| | American. Foreign. | American. Foreign. |
| 1871 | 49.36 and 50.64 in each 100. | 41.00 and 59.00 in each 100. |
| 1872 | 47.59 and 52.41 in each 100. | 41.25 and 58.75 in each 100. |
| 1873 | 50.30 and 49.70 in each 100. | 59.21 and 40.79 in each 100. |
| 1874 | 47.14 and 52.86 in each 100. | 50.00 and 50.00 in each 100. |
| 1875 | 47.88 and 52.12 in each 100. | 49.19 and 50.81 in each 100. |
| 1876 | 46.43 and 53.57 in each 100. | 45.76 and 54.24 in each 100. |
| 1877 | 49.41 and 50.59 in each 100. | 53.31 and 46.69 in each 100. |
| 1878 | 49.35 and 50.65 in each 100. | 55.65 and 44.35 in each 100. |
| 1879 | 50.53 and 49.47 in each 100. | 54.63 and 45.37 in each 100. |
| 1880 | 50.17 and 49.83 in each 100. | 54.16 and 45.84 in each 100. |
| 1881 | 49.60 and 50.40 in each 100. | 48.10 and 51.90 in each 100. |
| 1882 | 50.21 and 49.79 in each 100. | 50.58 and 49.42 in each 100. |
| 1883 | 49.94 and 50.06 in each 100. | 50.98 and 49.02 in each 100. |
| 1884 | 49.91 and 50.09 in each 100. | 49.63 and 50.37 in each 100. |
| 14 years, 1859-1872 | 50.54 and 49.46 in each 100. | 41.25 and 58.75 in each 100. |
| 10 years, 1873-1882 | 49.10 and 50.90 in each 100. | 51.84 and 48.16 in each 100. |

## ILLEGITIMATES.—1884.

The following Table will exhibit the number, sex, color, parentage and locality of birth of illegitimates in Rhode Island, during 1884:

### TABLE XXX.

| TOWNS. | Whole Number. | SEX. | | COLOR. | | PARENTAGE. | | Almshouses or Penal Institutions. |
|---|---|---|---|---|---|---|---|---|
| | | Males. | Females. | Black. | White. | American. | Foreign. | |
| Warren | 1 | 1 | ...... | ...... | 1 | 1 | ...... | ...... |
| Coventry | 3 | 1 | 2 | ...... | 3 | 2 | 1 | ...... |
| East Greenwich | 1 | ...... | 1 | 1 | ...... | 1 | ...... | ...... |
| Warwick | 1 | ...... | 1 | ...... | 1 | 1 | ...... | ...... |
| Middletown | 1 | ...... | 1 | ...... | 1 | 1 | ...... | ...... |
| New Shoreham | 1 | 1 | ...... | 1 | ...... | 1 | ...... | ...... |
| Newport City | 11 | 7 | 4 | 4 | 7 | 11 | ...... | 1 |
| Burrillville | 2 | 2 | ...... | ...... | 2 | 2 | ...... | ...... |
| Cranston | 9 | 5 | 4 | ...... | 9 | 3 | 6 | 8 |
| Foster | 2 | 1 | 1 | ...... | 2 | 2 | ...... | ...... |
| Johnston | 2 | 1 | 1 | ...... | 2 | 2 | ...... | ...... |
| Woonsocket | 1 | ...... | 1 | ...... | 1 | ...... | 1 | ...... |
| Providence City | 12 | 7 | 5 | 2 | 10 | 6 | 6 | 3 |
| Hopkinton | 1 | 1 | ...... | ...... | 1 | 1 | ...... | ...... |
| South Kingstown | 1 | 1 | ...... | ...... | 1 | 1 | ...... | ...... |
| Richmond | 1 | ...... | 1 | ...... | 1 | 1 | ...... | ...... |
| Whole State | 50 | 28 | 22 | 8 | 42 | 36 | 14 | 12 |

*Sex.*—There were 50 children born in the State, during 1884, of unmarried mothers, according to the returns. The number was the same as in 1883.

Of the 50 there were 28 males and 22 females.

The proportions were 127.2 males to every 100 females.

*Color*—Of the 50 illegitimates born during 1884, 42 were white and 8 were colored.

The proportion, according to population, of white and colored, was about 8 illegitimates of color to one of white, that is, there are 42 whites to each person of color, by population, and there should be, therefore, to retain the same proportion, only one illegitimate of color to 42 of white. The number of colored illegitimates, in 1883, was 15.

*Parentage.*—Of the 50 illegitimates in 1884, 36 were born of American mothers, and 14 of foreign born mothers. The colored illegitimates were of American parentage. There were, of the 42 white illegitimates, 28 born of American mothers, and 14 of foreign born mothers.

The parentage given is of native born and foreign born, that is, mothers born in the United States of foreign born parents are reckoned as of American parentage. Several of the illegitimates, classed as of American parentage, are the grandchildren of foreign born grand parents.

Twelve, or about one-quarter of the illegitimates, were born of pauper or criminal mothers, in public, charitable or penal institutions.

# MARRIAGES, 1884.

The number of marriages reported in Rhode Island during the year 1884 was 2,558. This number is 53 less than in 1883, and 76 less than in 1882.

The general statistics of marriage in 1884, in relation to season and number in the different divisions of the State, may be found in Table IV, on the seventh page.

## SEASON.

The following Table will show the number and percentage of marriages in Rhode Island, in each quarter of the year 1884, together with the aggregate number and percentage in each quarter for thirty years, viz., from 1854 to 1883, inclusive:

### TABLE XXXI.

| YEARS. | | First Quarter. | Second Quarter. | Third Quarter. | Fourth Quarter. | Whole Year. |
|---|---|---|---|---|---|---|
| 1884.... .. ... | Number.......... | 583 | 669 | 574 | 732 | 2,558 |
| | Percentage ..... .. | 22.79 | 26.11 | 22.44 | 28.66 | 100.00 |
| 30 yrs. 1854-1883 | Number.......... | 13,996 | 15,646 | 14,651 | 18,555 | 62,848 |
| | Percentage ..... .. | 22.27 | 24.89 | 23.32 | 29.52 | 100.00 |

The proportions of the number of marriages, in the different quarters of the year, to the whole number during the year 1884, were as follows: The largest proportion, 28.66 per cent., was in the last quarter; the next largest, 26.11 per cent., was in the second quarter; followed by the first quarter, 22.79 per cent.; and the third quarter, 22.44 per cent., the smallest proportion.

The proportions, during 1884, differed somewhat from the rule established by thirty years of registration, that is, the largest number of marriages during the last quarter, the next largest number during the second quarter, followed in that order by the third, and lastly by the first quarter.

In 1884 the least number was in the third quarter.

## NATIVITY OF PERSONS MARRIED.

The following Table shows the *number* of marriages, according to the nativity of the parties, for each of the last six years, and also for the aggregate of five years, from 1878 to 1882, inclusive, and of twenty years, from 1858 to 1877, inclusive:

### Table XXXII.

| BIRTH-PLACE. | 1884. | 1883. | 1882. | 1881. | 1880. | 1879. | 5 years. 1878–1882. Total. | 20 years. 1858–1877. Total. |
|---|---|---|---|---|---|---|---|---|
| United States | 1,410 | 1,428 | 1,500 | 1,638 | 1,775 | 1,511 | 7,879 | 25,674 |
| Foreign countries | 668 | 709 | 659 | 623 | 548 | 467 | 2,790 | 10,963 |
| American groom, foreign bride | 257 | 237 | 242 | 244 | 202 | 209 | 1,078 | 2,410 |
| Foreign groom, American bride | 223 | 237 | 233 | 245 | 244 | 209 | 1,126 | 2,750 |
| Not stated | ...... | ...... | ...... | ...... | ...... | ...... | ............ | 64 |
| Total | 2,558 | 2,611 | 2,634 | 2,750 | 2,769 | 2,396 | 12,873 | 41,861 |

The number of marriages of whom both groom and bride were of American birth was less, in 1884, than in any one of the previous five years. The number was 18 less than in 1883, 90 less than in 1882, 228 less than in 1881, and 365 less than in 1880.

It has been a matter of previous comment that, notwithstanding the increase of persons of American birth, of both American and foreign parentage, the number of marriages of parties of whom both are of foreign birth had increased, from year to year, until 1884.

It will be observed that the number of marriages of parties of whom one was of American and the other of foreign birth has not varied very much, during the last three years; that of American groom, however, was increased in 1884 by 20 over the previous year, and the number of foreign groom was decreased by 14.

In the following Table are given the *percentages* of American, foreign and mixed marriages, in each of the last six years, and in the aggregate of five years, 1878 to 1882, inclusive, and of twenty years, 1858 to 1877, inclusive:

## TABLE XXXIII.

| BIRTH-PLACE. | 1884. | 1883. | 1882. | 1881. | 1880. | 1879. | 5 years, 1878–1882 | 20 years, Total. |
|---|---|---|---|---|---|---|---|---|
| United States | 55.12 | 54.69 | 56.95 | 59.56 | 64.10 | 63.06 | 61.25 | 61.33 |
| Foreign countries | 26.12 | 27.15 | 25.02 | 22.65 | 19.79 | 19.49 | 21.63 | 26.19 |
| Mixed | 18.76 | 18.16 | 18.03 | 17.79 | 16.11 | 17.45 | 17.12 | 12.48 |
| Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

There was a small increase in the percentage of marriages of American born persons in 1884, and a small decrease in the percentage of marriages of foreign born. The marriages of persons of whom one was American born and the other foreign born was larger, in proportion, than during the previous year, which was only following the rule of many previous years.

### AGES OF PERSONS MARRIED.

The number of persons married in Rhode Island, during the year 1884, in the different periods of life, is shown in Table V, on page eight. The number of each sex, in each division of age, can also be found in the following Table :

## TABLE XXXIV.

| 1883. | Under 20. | 20 to 25. | 25 to 30. | 30 to 35. | 35 to 40. | 40 to 45. | 45 to 50. | 50 to 55. | 55 to 60. | 60 to 65. | 65 to 70. | 70 to 75. | 75 to 80. | 80 to 85. | 85 to 90. | Not stated. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Males | 64 | 926 | 744 | 354 | 184 | 94 | 66 | 34 | 39 | 25 | 20 | 5 | 3 | .... | .... | .... |
| Females | 420 | 1,101 | 545 | 215 | 123 | 58 | 48 | 30 | 9 | 5 | 3 | 1 | .... | .... | .... | .... |
| Total | 484 | 2,027 | 1,289 | 569 | 307 | 152 | 114 | 64 | 48 | 30 | 23 | 6 | 3 | .... | .... | .... |

The number of marriages in 1884, of which the contracting parties greatly differed in respect to age, was less than in many previous years.

In one marriage the groom was 58, and the bride 18. In another marriage a groom between 65 and 70 took a bride between 25 and 30.

On the other hand, a bride between 50 and 55 years of age took for a husband a groom of between 35 and 40.

These are the extreme cases, and do not show a disparity of ages so great as in many former years.

The whole number of persons, in each division of ages of both sexes, married in Rhode Island, in each of the last nineteen years, that is, from 1866 to 1884, inclusive, is presented in the following Table:

### TABLE XXXV.

| YEARS. | Under 20. | 20 to 25. | 25 to 30. | 30 to 35. | 35 to 40. | 40 to 45. | 45 to 50. | 50 to 55. | 55 to 60. | 60 to 65. | 65 to 70. | 70 to 75. | 75 to 80. | 80 to 85. | 85 to 90. | Not stated. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1866 | 693 | 1,931 | 1,025 | 419 | 213 | 127 | 81 | 59 | 25 | 21 | 12 | 7 | ... | .... | .... | 23 |
| 1867 | 696 | 1,886 | 1,104 | 416 | 211 | 148 | 91 | 48 | 37 | 18 | 18 | 5 | 3 | 1 | ... | 6 |
| 1868 | 641 | 1,835 | 1,050 | 432 | 219 | 133 | 82 | 61 | 30 | 29 | 11 | 8 | 4 | ... | ... | 32 |
| 1869 | 642 | 1,814 | 1,051 | 468 | 227 | 134 | 79 | 46 | 35 | 15 | 11 | 2 | 3 | 2 | .... | 49 |
| 1870 | 744 | 1,883 | 1,084 | 415 | 216 | 159 | 86 | 64 | 26 | 24 | 12 | 3 | 2 | ... | ... | 6 |
| 1871 | 697 | 1,914 | 1,118 | 392 | 228 | 115 | 73 | 56 | 35 | 22 | 6 | 7 | 3 | .... | .... | 6 |
| 1872 | 786 | 2,073 | 1,182 | 434 | 237 | 131 | 81 | 61 | 43 | 21 | 13 | 6 | 1 | .... | .... | 5 |
| 1873 | 762 | 2,177 | 1,156 | 507 | 253 | 140 | 87 | 68 | 35 | 21 | 12 | 6 | 6 | ... | .... | 27 |
| 1874 | 770 | 1,992 | 1,179 | 459 | 268 | 159 | 101 | 52 | 36 | 39 | 8 | 9 | 1 | .... | .... | 9 |
| 1875 | 681 | 2,058 | 1,108 | 475 | 252 | 150 | 101 | 60 | 82 | 29 | 13 | 4 | 1 | .... | ... | 6 |
| 1876 | 691 | 1,741 | 1,041 | 450 | 224 | 154 | 80 | 53 | 27 | 19 | 12 | 1 | 2 | .... | .... | 9 |
| 1877 | 631 | 1,745 | 1,118 | 459 | 244 | 125 | 92 | 52 | 46 | 14 | 15 | 11 | 2 | 1 | ... | 9 |
| 1878 | 618 | 1,832 | 1,123 | 441 | 259 | 162 | 74 | 49 | 39 | 20 | 17 | 2 | 4 | .... | .... | 8 |
| 1879 | 639 | 1,879 | 1,156 | 481 | 272 | 123 | 78 | 56 | 39 | 26 | 18 | 9 | 2 | 2 | 1 | 11 |
| 1880 | 688 | 2,301 | 1,262 | 556 | 329 | 163 | 91 | 65 | 33 | 27 | 15 | 3 | 3 | 1 | ... | 1 |
| 1881 | 599 | 2,208 | 1,410 | 547 | 298 | 187 | 107 | 54 | 34 | 31 | 16 | 5 | 1 | 1 | .... | 2 |
| 1882 | 498 | 2,125 | 1,377 | 563 | 301 | 161 | 102 | 57 | 36 | 27 | 11 | 5 | 3 | 2 | .... | .... |
| 1883 | 497 | 2,108 | 1,370 | 486 | 319 | 183 | 115 | 73 | 31 | 20 | 14 | 3 | 2 | 1 | .... | .... |
| 1884 | 484 | 2,027 | 1,289 | 569 | 307 | 152 | 114 | 64 | 48 | 30 | 23 | 6 | 3 | .... | .... | .... |

The number of persons contracting marriage who have not attained the age of twenty years, has been gradually diminishing for the last twelve or fifteen years.

When we take into consideration the increased population, and the increased number of marriages which would naturally result therefrom, it will be obvious that the *proportion* to the whole number of marriages must be very much less.

The following summary will show the whole number of persons married, the number of persons married under twenty years of age, and the percentages of marriages of persons under twenty years of age, during two periods of five years each, that is, from 1870 to 1874, inclusive, and from 1880 to 1884, inclusive:

| | Whole number of persons married. | Number married under twenty years of age. | Percentage of persons married under twenty years of age. |
|---|---|---|---|
| 1870 to 1874 | 24,812 | 3,759 | 15.2 |
| 1880 to 1884 | 26,644 | 2,766 | 10.4 |

The proportion of persons, under twenty years of age, who were married during 1884, was 9.4 per cent. of the whole number of persons married during the same year.

The gradually lessening proportions of persons under twenty years of age, who assume the obligations of marriage, may also be shown by taking several years at random, as shown in the following exhibit:

| Years. | Married under 20 years of age. |
|---|---|
| 1870 | 15.9 per cent. of whole number. |
| 1872 | 15.5 per cent. of whole number. |
| 1876 | 15.3 per cent. of whole number. |
| 1880 | 12.4 per cent. of whole number. |
| 1883 | 9.5 per cent. of whole number. |
| 1884 | 9.4 per cent. of whole number. |

### PROPORTION OF SEX.

The following Table will show the percentages of *males* married, in each division of ages, in each of the last twenty-five years:

### TABLE XXXVI.

| | YEARS. | Under 20. | 20 to 25. | 25 to 30. | 30 to 40. | 40 to 50. | 50 & over. | Total. |
|---|---|---|---|---|---|---|---|---|
| MALES. | 1860 | 5.0 | 42.8 | 26.9 | 16.3 | 5.7 | 3.3 | 100.00 |
| | 1861 | 4.6 | 44.5 | 25.4 | 15.5 | 5.8 | 4.2 | 100.00 |
| | 1862 | 4.2 | 37.8 | 27.9 | 18.3 | 5.9 | 5.9 | 100.00 |
| | 1863 | 3.5 | 38.0 | 29.6 | 17.2 | 5.8 | 5.9 | 100.00 |
| | 1864 | 4.3 | 38.8 | 27.3 | 17.9 | 7.4 | 4.3 | 100.00 |
| | 1865 | 3.5 | 37.0 | 28.4 | 18.9 | 7.5 | 4.7 | 100.00 |
| | 1866 | 5.3 | 40.9 | 27.0 | 16.4 | 6.3 | 4.1 | 100.00 |
| | 1867 | 4.3 | 40.1 | 27.9 | 16.8 | 6.8 | 4.1 | 100.00 |
| | 1868 | 4.1 | 39.9 | 28.2 | 17.1 | 6.1 | 4.6 | 100.00 |
| | 1869 | 4.3 | 39.6 | 27.7 | 18.5 | 6.1 | 3.8 | 100.00 |
| | 1870 | 4.8 | 40.4 | 28.1 | 16.0 | 6.4 | 4.3 | 100.00 |
| | 1871 | 5.3 | 40.1 | 28.9 | 16.5 | 4.9 | 4.3 | 100.00 |
| | 1872 | 4.3 | 41.3 | 28.2 | 16.6 | 5.2 | 4.4 | 100 00 |
| | 1873 | 3.8 | 42.4 | 26.7 | 17.0 | 6.0 | 4.1 | 100.00 |
| | 1874 | 4.1 | 40.4 | 27.2 | 17.5 | 6.4 | 4.4 | 100.00 |
| | 1875 | 3.5 | 40.9 | 27.8 | 17.6 | 6.1 | 4.2 | 100.00 |
| | 1876 | 5.1 | 37.5 | 28.6 | 17.9 | 5.6 | 4.3 | 100.00 |
| | 1877 | 4.3 | 36.0 | 30.2 | 18.7 | 5.9 | 6.9 | 100.00 |
| | 1678 | 3.9 | 38.5 | 29.0 | 18.0 | 6.3 | 4.3 | 100.00 |
| | 1879 | 3.9 | 37.8 | 28.8 | 19.3 | 5.4 | 4.8 | 100.00 |
| | 1880 | 3.6 | 38.9 | 27.5 | 19.9 | 5.8 | 4.3 | 100.00 |
| | 1881 | 2.8 | 37.2 | 29.7 | 19.5 | 6.8 | 4.0 | 109.00 |
| | 1882 | 2.2 | 36.0 | 31.4 | 20.0 | 6.1 | 4.3 | 100.00 |
| | 1883 | 2.9 | 36.2 | 31.7 | 17.7 | 7.2 | 4.3 | 100.00 |
| | 1884 | 2.5 | 36.2 | 29.1 | 21.0 | 6.2 | 5.0 | 100.00 |

The following Table will show the percentages of *females* married, in each division of ages, in each of the last twenty-five years:

## TABLE XXXVII.

| | YEARS. | Under 20. | 20 to 25. | 25 to 30. | 30 to 40. | 40 to 50. | 50 & over. | Total. |
|---|---|---|---|---|---|---|---|---|
| FEMALES. | 1860 | 25.8 | 44.1 | 17.0 | 9.1 | 2 6 | 1.4 | 100.00 |
| | 1861 | 29.6 | 42.0 | 15.2 | 7.8 | 4.1 | 1.3 | 100.00 |
| | 1862 | 24.9 | 41.3 | 16.7 | 11.8 | 4.1 | 1.2 | 100.00 |
| | 1863 | 24.9 | 42.6 | 16.9 | 9.8 | 4.1 | 1.7 | 100.00 |
| | 1864 | 24.2 | 43.4 | 17.8 | 10.3 | 2.9 | 1.4 | 100.00 |
| | 1865 | 22.6 | 43.3 | 19.1 | 11.0 | 3.5 | 1.5 | 100.00 |
| | 1866 | 24.7 | 42.9 | 17.4 | 11.0 | 2.7 | 1.3 | 100.00 |
| | 1867 | 25.4 | 40.5 | 19.3 | 10.0 | 3.4 | 1.4 | 100.00 |
| | 1868 | 24.4 | 40.9 | 18.1 | 11.6 | 3.3 | 1.7 | 100.00 |
| | 1869 | 24.1 | 40.5 | 18.7 | 12.1 | 3.4 | 1.2 | 100 00 |
| | 1870 | 26.8 | 39.4 | 17.9 | 10.8 | 3.9 | 1.2 | 100.00 |
| | 1871 | 24.6 | 41.9 | 19.1 | 10.1 | 3.1 | 1.2 | 100.00 |
| | 1872 | 26.7 | 40.5 | 18.4 | 9.9 | 2.2 | 1.3 | 100.00 |
| | 1873 | 25.3 | 40.8 | 17.5 | 12.0 | 2.7 | 1.7 | 100.00 |
| | 1874 | 26.3 | 38.1 | 19.3 | 11.1 | 3.9 | 1.3 | 100.00 |
| | 1875 | 23.9 | 42.1 | 16.8 | 11.8 | 4.0 | 1.4 | 100.00 |
| | 1876 | 25.6 | 39.8 | 17.6 | 12.0 | 3.7 | 1.3 | 100.00 |
| | 1877 | 23.4 | 40.4 | 18.8 | 12.1 | 3.6 | 1.7 | 100.00 |
| | 1878 | 22.7 | 40.4 | 19.3 | 12.2 | 3.8 | 1.6 | 100.00 |
| | 1879 | 22.8 | 40.7 | 19.4 | 12.1 | 3.0 | 2.0 | 100.00 |
| | 1880 | 21.1 | 44.2 | 18.0 | 12.0 | 3.3 | 1.4 | 100.00 |
| | 1881 | 19.0 | 43.0 | 21.5 | 11.2 | 3.8 | 1.5 | 100.00 |
| | 1882 | 16.7 | 44.8 | 20.9 | 12.6 | 3.9 | 1.1 | 100.00 |
| | 1883 | 16.2 | 44.2 | 20.6 | 13.2 | 4.3 | 1.5 | 100.00 |
| | 1884 | 16.4 | 43.0 | 21.3 | 13.2 | 4.2 | 1.9 | 100.00 |

In the two preceding Tables may be found the changes that have occurred in the proportions of persons married, in the different divisions of age, in every year since 1860.

In Table XXXVI it will be observed that the percentage of males who were married, previous to the attainment of twenty years of age, has, with small changes in different years, gradually lessened from a proportion of fifty in every thousand married, in 1860, to a proportion of twenty-five, in 1884.

The same facts have also obtained in regard to the marriage of males under twenty-five years of age, although in a largely less proportion. And the same remarks may be made in regard to the marriage of females under twenty years of age.

During the five years from 1860 to 1864, inclusive, the average proportion of females under twenty who were married was 25.5 per cent., or more than one-quarter of the whole. During the five years from 1880 to 1884, inclusive, the proportion of the same class was 17.9 per cent.

## MARRIAGES OF PERSONS OF COLOR.

The number of marriages of persons of color, in Rhode Island, in 1884, was 70. This includes four marriages of which one of the parties was white. The number and color of the individuals were, therfore, 136 persons of color, and 4 persons white. The white persons were all females. The marriages, however, may be properly classed as colored marriages.

The number reported during 1884 from the different towns, was as follows, viz.:

| | | |
|---|---|---|
| Providence (including 3 white brides) | | 55 |
| Newport (including 1 white bride) | | 9 |
| South Kingstown | | 8 |
| East Providence,<br>Scituate,<br>Hopkinton, | 1 each | 3 |
| | | — |
| Total | | 70 |

## MARRIAGES OF THE DIVORCED.

The following Table will give the names of the towns from which returns of marriage with the facts of divorce were reported, the whole number of divorced persons married, also whether the second or third marriage of the divorced groom or bride, and number of remarriages of same persons:

| TOWNS. | Whole Number. | Groom. | Bride. | Second Marriage of Groom. | Third Marriage of Groom. | Second Marriage of Bride. | Third Marriage of Bride. | Remarriages, Same Parties. |
|---|---|---|---|---|---|---|---|---|
| East Greenwich | 2 | ........ | 2 | ........ | ........ | 2 | ........ | ........ |
| Newport City | 3 | ........ | 3 | ........ | ........ | 3 | ........ | ........ |
| Cranston | 7 | 4 | 3 | 3 | 1 | 2 | 1 | ........ |
| Johnston | 6 | 3 | 3 | 2 | 1 | 3 | ........ | ........ |
| Woonsocket | 4 | 2 | 2 | 2 | ........ | 2 | ........ | ........ |
| Providence City | 108 | 53 | 55 | 52 | 1 | 55 | ........ | 3 |
| Westerly | 1 | ........ | 1 | ........ | ........ | 1 | ........ | ........ |
| State | 131 | 62 | 69 | 59 | 3 | 68 | 1 | 3 |

# DIVORCES, 1884.

The number of applications for divorce, in Rhode Island, during the year 1884, as ascertained by reports from the clerks of the supreme courts of the different counties, was three hundred and twenty (320).

During the year 1884 there were two hundred and sixty-six (266) applications for divorce granted, which were 9 more than in 1883.

The following Table shows the number of applications for divorce, and the number granted, in 1884, in each county of the State; also the causes alleged for the applications:

TABLE XXXVIII.

| COUNTIES. | Number of Applications. | Number Granted. | CAUSES ALLEGED. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Adultery. | Extreme Cruelty. | Wilful Desertion. | Continued Drunkenness. | Neglect to Provide Necessaries, &c. | Other Gross Misbehavior. | Impotency. | Total Causes Alleged. |
| Bristol | 5 | 4 | ...... | ...... | 3 | 1 | 4 | 2 | ...... | 10 |
| Kent | 26 | 20 | 6 | ...... | 9 | ...... | 11 | ...... | ...... | 26 |
| Newport | 20 | 12 | 4 | 7 | 9 | 4 | 9 | 1 | ...... | 34 |
| Providence | 245 | 209 | 44 | 45 | 161 | 52 | 159 | 33 | ...... | 494 |
| Washington | 24 | 21 | 7 | 10 | 24 | 9 | 16 | 12 | ...... | 78 |
| Whole State | 320 | 266 | 61 | 62 | 206 | 66 | 199 | 48 | ...... | 642 |

The allegations made as reasons why divorce in any given case should be granted, vary in the different cases, and it would naturally follow that the number of causes alleged in all the applications, during different years, would vary also.

The causes alleged in the 320 applications for divorce, during 1884, numbered 642, or about the average of two allegations to each application.

When adultery is alleged, it is usual to make but one allegation, especially when proof or convincing circumstantial evidence is available.

The causes alleged for divorce, during 1884, were 62 in number more than during 1883, when there was one more application.

There were nine more divorces granted, in 1884, than in the previous year.

In order to show the actual number of applications, and the number of divorces granted in each of the last twelve years, the following summary is presented :

| | Applications for Divorce. | Divorces Granted. | Applications refused or continued or withdrawn. |
|---|---|---|---|
| 1873 | 261 | 173 | 88 |
| 1874 | 276 | 242 | 34 |
| 1875 | 227 | 158 | 69 |
| 1876 | 254 | 196 | 58 |
| 1877 | 257 | 178 | 79 |
| 1878 | 258 | 196 | 62 |
| 1879 | 255 | 246 | 9 |
| 1880 | 347 | 273 | 74 |
| 1881 | 350 | 268 | 82 |
| 1872 | 339 | 271 | 68 |
| 1883 | 321 | 257 | 64 |
| 1884 | 320 | 266 | 54 |
| 12 years, total | 3,465 | 2,724 | 741 |

During the last twelve years the proportion of decrees of divorce, to whole number of applications, was 78.6 per cent. During 1883 it was 80 per cent., and during 1884 it was 83.0 per cent.

The proportion of *divorces granted,* in 1884, to the whole number of marriages during the same year, was *one divorce* to every 9.6 marriages.

The proportion of *applications for divorce* to whole number of marriages, during the year, was one *application* to every 8 marriages.

The following Table shows the number of divorces granted in each county, and in the whole State, in each of the last sixteen years, with the proportion of marriages to each divorce granted in each year :

## TABLE XXXIX.

| YEARS. | Bristol County. | | Kent County. | | Newport County. | | Providence County. | | Washington County. | | Whole State. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Divorces Granted. | Marriages to one Divorce. | Divorces Granted. | Marriages to one Divorce. | Divorces Granted. | Marriages to one Divorce. | Divorces Granted. | Marriages to one Divorce. | Divorces Granted. | Marriages to one Divorce. | Divorces Granted. | Marriages to one Divorce. |
| 1869 | 10 | 10.6 | 15 | 12.5 | 6 | 27.7 | 120 | 13.8 | 11 | 15.5 | 162 | 14.1 |
| 1870 | 3 | 27.7 | 18 | 11.8 | 6 | 26.3 | 152 | 11.3 | 21 | 9.3 | 200 | 11.8 |
| 1871 | 5 | 16.8 | 11 | 17.9 | 4 | 49.7 | 123 | 13.3 | 18 | 11.4 | 161 | 14.5 |
| 1872 | 8 | 10.2 | 13 | 15.7 | 8 | 22.9 | 149 | 12.6 | 22 | 8.9 | 200 | 12.7 |
| 1873 | 6 | 16.2 | 22 | 9.8 | 8 | 21.9 | 131 | 14.8 | 6 | 33.7 | 173 | 15.2 |
| 1874 | 10 | 8.9 | 20 | 8.0 | 6 | 29.0 | 190 | 10.0 | 16 | 11.6 | 242 | 10.5 |
| 1875 | 2 | 50.0 | 18 | 8.8 | 7 | 23.4 | 120 | 14.9 | 11 | 20.5 | 158 | 15.7 |
| 1876 | 6 | 14.5 | 15 | 12.8 | 7 | 20.5 | 148 | 11.1 | 20 | 8.8 | 190 | 11.5 |
| 1877 | 7 | 12.0 | 9 | 16.3 | 7 | 26.0 | 134 | 12.4 | 21 | 9.9 | 178 | 12.8 |
| 1878 | 4 | 26.0 | 11 | 13.3 | 13 | 12.8 | 156 | 10.9 | 12 | 17.3 | 196 | 11.9 |
| 1879 | 5 | 18.8 | 19 | 9.0 | 7 | 24.1 | 195 | 9.1 | 20 | 9.7 | 246 | 9.7 |
| 1880 | 8 | 12.1 | 23 | 9.4 | 11 | 17.6 | 208 | 9.7 | 23 | 17.0 | 273 | 10.1 |
| 1881 | 6 | 20.1 | 26 | 7.3 | 10 | 16.9 | 207 | 10.0 | 19 | 11.0 | 268 | 10.4 |
| 1882 | 6 | 15.0 | 18 | 10.3 | 15 | 13.0 | 221 | 8.9 | 11 | 16.2 | 271 | 9.7 |
| 1883 | 6 | 15.8 | 15 | 11.5 | 9 | 21.2 | 214 | 9.2 | 13 | 13.3 | 257 | 10.2 |
| 1884 | 4 | 16.7 | 20 | 8.0 | 12 | 15.7 | 209 | 9.3 | 21 | 8.2 | 266 | 9.6 |

The proportion of divorces granted during 1884, to the whole number of marriages contracted during the same, was one divorce to every 9.6 marriages, which is a larger proportion than during any previous year. It is, however, but slightly larger than those of the years 1879 and 1882.

During the last sixteen years the average proportions of divorce to marriage, in the several counties and the State, have been as follows:

| | |
|---|---|
| Bristol County | One divorce to every 16.5 marriages. |
| Kent County | One divorce to every 11.3 marriages. |
| Newport County | One divorce to every 23.0 marriages. |
| Providence County | One divorce to every 11.3 marriages. |
| Washington County | One divorce to every 13.7 marriages. |
| Whole State | One divorce to every 11.9 marriages. |

During a period of sixteen years, from 1869 to 1884, inclusive, Providence county and Kent county have equally furnished the largest proportion of persons divorced, to the number of persons married in each county respectively, and Newport county has furnished the least number of divorces to the number of its marriages.

In the whole State, during the three years from 1869 to 1871, inclusive, the proportion was one divorce to every 13.5 marriages. From 1872 to 1876, inclusive, it was one divorce to every 13.1 marriages. From 1877 to 1881, inclusive, it was one divorce to every 11 marriages; and from 1882 to 1884, inclusive, it was one divorce to every 9.8 marriages.

# DEATHS, 1884.

According to the returns made to the State Registrar, the number of deaths that occurred in Rhode Island, during 1884, was five thousand, one hundred and forty-one (5,141).

The number was 141 less than the number in the previous year.

The proportion to the living population, in 1884, was one death in every 59.2 persons; or 16.1 decedents in every one thousand of the population, estimating that at 304,000.

## SEX OF DECEDENTS.

Of the 5,141 persons whose deaths were returned, during the year 1884, 2,486 were males, and 2,655 were females; the ratio standing at 93.6 males to each 100 females, or 48.3 males and 51.7 females in each 100 decedents.

The following Tables, XL and XLI, show the number and proportion of males and females among the *decedents*, and also among the *children born* in Rhode Island during the ten years 1853 to 1862, inclusive; also in each of the twenty-two years from 1863 to 1884, inclusive, and for the entire period of thirty-two years:

## TABLE XL.

## DEATHS.

| | | | |
|---|---|---|---|
| 10 years, 1853-1862 | 10,930 males | 11,269 females | or 96.9 males to 100 females. |
| 1863 | 1,621 males | 1,586 females | or 102.2 males to 100 females. |
| 1864 | 1,633 males | 1,727 females | or 92.4 males to 100 females. |
| 1865 | 1,686 males | 1,719 females | or 98.1 males to 100 females. |
| 1866 | 1,497 males | 1,473 females | or 101.5 males to 100 females. |
| 1867 | 1,442 males | 1,447 females | or 99.7 males to 100 females. |
| 1868 | 1,413 males | 1,499 females | or 94.3 males to 100 females. |
| 1869 | 1,696 males | 1,686 females | or 100.6 males to 100 females. |
| 1870 | 1,588 males | 1,650 females | or 96.2 males to 100 females. |
| 1871 | 1,621 males | 1,723 females | or 94.1 males to 100 females. |
| 1872 | 2,118 males | 2,129 females | or 99.4 males to 100 females. |
| 1873 | 2,166 males | 2,237 females | or 95.5 males to 100 females. |
| 1874 | 2,111 males | 2,118 females | or 99.7 males to 100 females. |
| 1875 | 2,108 males | 2,209 females | or 95.4 males to 100 females. |
| 1876 | 1,969 males | 2,147 females | or 91.7 males to 100 females. |
| 1877 | 2,132 males | 2,318 females | or 92.0 males to 100 females. |
| 1878 | 2,161 males | 2,280 females | or 94.8 males to 100 females. |
| 1879 | 2,183 males | 2,289 females | or 95.4 males to 100 females. |
| 1880 | 2,366 males | 2,463 females | or 96.0 males to 100 females. |
| 1881 | 2,367 males | 2,559 females | or 96.8 males to 100 females. |
| 1882 | 2,487 males | 2,587 females | or 96.5 males to 100 females. |
| 1883 | 2,627 males | 2,655 females | or 99.0 males to 100 females. |
| 1884 | 2,486 males | 2,655 females | or 93.6 males to 100 females. |
| 32 years | 54,508 males | 56,415 females | or 96.6 males to 100 females. |

## TABLE XLI.

## BIRTHS.

| | | | |
|---|---|---|---|
| 10 years, 1853–1862 | 18,377 males | 17,260 females | or 106.4 males to 100 females. |
| 1863 | 1,892 males | 1,788 females | or 105.8 males to 100 females. |
| 1864. | 1,949 males | 1,942 females | or 100.3 males to 100 females. |
| 1865 | 2,096 males | 1,857 females | or 112.9 males to 100 females. |
| 1866 | 2,546 males | 2,356 females | or 108.1 males to 100 females. |
| 1867 | 2,655 males | 2,464 females | or 107.7 males to 100 females. |
| 1868 | 2,745 males | 2,627 females | or 104.5 males to 100 females. |
| 1869 | 2,685 males | 2,560 females | or 104.9 males to 100 females. |
| 1870 | 2,679 males | 2,536 females | or 105.6 males to 103 females. |
| 1871 | 2,878 males | 2,800 females | or 102.8 males to 100 females. |
| 1872 | 3,085 males | 3,058 females | or 100.9 males to 100 females. |
| 1873 | 3,135 males | 2,887 females | or 108.6 males to 100 females. |
| 1874 | 3,311 males | 3,155 females | or 104.9 males to 100 females. |
| 1875 | 3,362 males | 3,146 females | or 106.9 males to 100 females. |
| 1876 | 3,291 males | 3,038 females | or 108.3 males to 100 females. |
| 1877 | 3,163 males | 3,072 females | or 103.0 males to 100 females. |
| 1878 | 3,402 males | 3,312 females | or 102.7 males to 100 females. |
| 1879 | 3,259 males | 3,091 females | or 105.4 males to 100 females. |
| 1880 | 3,241 males | 3,054 females | or 106.1 males to 100 females. |
| 1881 | 3,498 males | 3,263 females | or 107.2 males to 100 females. |
| 1882 | 3,509 males | 3,316 females | or 105.8 males to 100 females. |
| 1883 | 3,548 males | 3,498 females | or 101.4 males to 100 females. |
| 1884 | 3,713 males | 3,592 females | or 103.4 males to 100 females. |
| 32 years | 84,019 males | 79,672 females | or 105.6 males to 100 females. |

By the preceding Tables it will be seen that the average annual proportion of the sexes of the decedents, during thirty-two years of registration in Rhode Island, was 96.6 males to every 100 females; and that the average proportion of the sexes by births, during the same period, was 105.6 to every 100 females.

## SEASON AND MORTALITY.

The whole number of decedents, and the sex of the same, in each month of the year 1884, and in each division of the State, may be found in Table VI, on the ninth page.

The influence of season upon mortality may be further illustrated by the following Table, which shows the number and percentage of deaths in each quarter of each of the last five years, and in the aggregate for thirty-one years, from 1853 to 1883, inclusive:

### Table XLII.

| SEASON. | 1884. | | 1883. | | 1882. | | 1881. | | 1880. | | 1853–1883. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number. | Per cent. | Number. | Per cent. | Number. | Per cent. | Number. | Per cent. | Number. | Per cent. | Number. | Per cent. |
| January-March. | 1,111 | 21.61 | 1,246 | 23.59 | 1,180 | 23.23 | 1,236 | 24.62 | 1,216 | 25.18 | 24,814 | 23.46 |
| April-June..... | 1,111 | 21.61 | 1,321 | 25.00 | 1,186 | 23.24 | 1,171 | 23.34 | 1,149 | 23.80 | 22,239 | 21.02 |
| July-September | 1,512 | 29.41 | 1,471 | 27.84 | 1,443 | 28.42 | 1,424 | 28.38 | 1,306 | 27.04 | 30,457 | 28.79 |
| October-Dec.... | 1,407 | 27.37 | 1,244 | 23.57 | 1,265 | 25.11 | 1,185 | 23.66 | 1,158 | 23.98 | 28,272 | 26.73 |
| Total.......... | 5,141 | 100.00 | 5,282 | 100.00 | 5,074 | 100.00 | 5,016 | 100.00 | 4,829 | 100.00 | 105,782 | 100.00 |

The proportion of the decedents in the first quarter of the year, 21.61 per cent., is quite remarkable, if not unprecedented. The average of thirty-one years was 23.46 per cent.

The second quarter shows a proportion slightly larger than the average of thirty-one years, but smaller than in any one of the previous four years.

The proportion of the third quarter is unusually large, 29.41 per cent. The average of the long period of years was 28.79 per cent.

The third quarter has the largest mortality in every year.

The fourth quarter, 27.37 per cent., is also larger than usual. The proportion during thirty-one years was 26.73 per cent.

## TABLE XLIII.

*Showing the months in the order of largest mortality, for eight years.*

| | 1884. | | 1883. | | 1882. | | 1881. | | 1880. | | 1879. | | 1878. | | 1877. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | August | 542 | July | 537 | August | 589 | August | 576 | July | 488 | January | 468 | December | 421 | September | 454 |
| 2. | October | 518 | August | 499 | November | 461 | January | 439 | August | 430 | August | 452 | August | 420 | August | 450 |
| 3. | September | 514 | April | 475 | September | 444 | July | 434 | March | 426 | December | 395 | July | 410 | October | 430 |
| 4 | December | 457 | January | 452 | July | 410 | October | 426 | January | 422 | October | 391 | January | 400 | July | 413 |
| 5. | July | 456 | May | 445 | May | 406 | April | 417 | October | 416 | November | 388 | March | 396 | December | 411 |
| 6. | November | 432 | October | 443 | December | 405 | September | 414 | April | 400 | July | 383 | November | 377 | November | 398 |
| 7. | April | 416 | March | 442 | April | 401 | May | 410 | May | 392 | March | 382 | February | 362 | March | 347 |
| 8. | March | 389 | September | 435 | October | 399 | March | 401 | September | 388 | April | 342 | April | 350 | May | 343 |
| 9. | January | 378 | December | 409 | January | 398 | February | 396 | December | 377 | September | 339 | September | 345 | January | 323 |
| 10. | May | 369 | June | 401 | February | 392 | December | 385 | February | 368 | February | 335 | October | 342 | April | 310 |
| 11 | February | 344 | November | 392 | March | 390 | November | 374 | November | 365 | May | 318 | June | 310 | June | 305 |
| 12. | June | 326 | February | 352 | June | 379 | June | 344 | June | 357 | June | 279 | May | 308 | February | 266 |
| | | 5,141 | | 5,282 | | 5,074 | | 5,016 | | 4,829 | | 4,472 | | 4,441 | | 4,450 |

In long periods of years, August is the month in which occurs the largest number of deaths. The rule held good in 1884. During the last eight years, however, August had the largest mortality in three years only.

It is seldom that October has the second largest number of deaths in any year, such an event not having occurred within the last twenty years, previous to 1884.

An examination of the Table will show that the months are quite variable, from year to year, in the proportion of deaths that occur in them respectively.

## PARENTAGE OF DECEDENTS.

The number of decedents, in 1884, of the two general classes of parentage, that is, American and foreign, may be found in Table I, on pages 2 and 3.

Of the whole number of decedents, 5,141, reported in 1884, 2,485 were of American, and 2,656 were of foreign parentage.

By the term "foreign parentage" is meant the decedents whose fathers were born in some other country and not in the United States. The grandchildren of foreign born grandfathers are not reckoned as of foreign parentage, if their own fathers were born in the United States.

The following towns reported a larger number of decedents of foreign parentage than of American: Warren, Burrillville, Cumberland, Lincoln, North Smithfield, Pawtucket, Woonsocket, and Providence city. Also the State Institutions in Cranston.

The nine towns reporting a larger number of decedents of foreign parentage than of American, had the following proportions of the same:

| | |
|---|---|
| Burrillville | 150 of foreign parentage to each 100 of American. |
| Cranston (State Institutions) | 150 of foreign parentage to each 100 of American. |
| Cumberland | 259 of foreign parentage to each 100 of American. |
| Lincoln | 466 of foreign parentage to each 100 of American. |
| North Smithfield | 140 of foreign parentage to each 100 of American. |
| Pawtucket | 171 of foreign parentage to each 100 of American. |
| Woonsocket | 266 of foreign parentage to each 100 of American. |
| Providence City | 125 of foreign parentage to each 100 of American. |
| Warren | 157 of foreign parentage to each 100 of American. |

The following Table gives the number and percentage of decedents of American and of foreign parentage, in each of the last five years; and in the aggregate for twenty-five years, or from 1858 to 1882, inclusive:

## TABLE XLIV.

| PARENTAGE. | 1884. | | 1883. | | 1882. | | 1881. | | 1880. | | 1858-1882. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number. | Per cent. | Number. | Per cent. | Number. | Per cent. | Number. | Per cent. | Number. | Per cent. | Number. | Per cent. |
| American | 2,485 | 48.34 | 2,652 | 50,21 | 2,429 | 47.87 | 2,482 | 49.48 | 2,517 | 52.13 | 59,760 | 55.36 |
| Foreign | 2,656 | 51.66 | 2,630 | 49.79 | 2,645 | 52.13 | 2,531 | 50.52 | 2,312 | 47.87 | 48,193 | 44.64 |
| Total | 5,141 | 100.00 | 5,282 | 100.00 | 5,074 | 100.00 | 5,016 | 100.00 | 4,829 | 100.00 | 107,953 | 100.00 |

### AGE OF DECEDENTS.

In Table I, on pages 2 and 3, may be found the aggregate and average age of all the decedents whose deaths occurred in 1884, and with the age of each sex, in each town and county in the State.

By that Table it will be seen that the average age of all the male decedents in the State, in 1884, was 32.29 years, and that the average age of all the female decedents, in the same year, was 35.12 years.

The average age of all decedents, of both sexes, in the same year, was 33.76 years.

The general average of age is about one and three-fourth years less than that of 1883, but, with the exception of 1883, is above the average of all previous years.

The following summary will show the average age of each of the sexes, and of all, in each of the last six years:

| | 1884. | 1883. | 1882. | 1881. | 1880. | 1879. |
|---|---|---|---|---|---|---|
| | Average. | Average. | Average. | Average. | Average. | Average. |
| Males | 32.29 years | 33.64 years | 31.33 years | 30.99 years | 29.62 years | 31.29 years. |
| Females | 35.12 years | 37.44 years | 35.57 years | 34.07 years | 32.06 years | 33.24 years. |
| Ages of all | 33.76 years | 35.55 years | 33.50 years | 32.55 years | 30.86 years | 32.29 years. |

It was stated in the Report for 1883 that the average age of decedents has surely increased in Rhode Island, during the last twenty-five years, notwithstanding the introduction into the State of a large class of population of unsanitary habits and prolific of progeny, and of whose children a large proportion die early from lack of suitable diet, clothing, cleanliness, and want of proper care and attention in health and in sickness.

For a ready reference the following Table, continued from a previous Report, will show the average annual proportion of deaths to estimated average population, the death rate per 1,000, and average age of all decedents during ten years, from 1870 to 1880, in each town and in each county in the State.

It should be stated that in estimating the average population, during the period of ten years, corrections were made for losses by division of territory, and also for gains of population by addition of territory, where such changes have occurred.

It may be stated, also, that changes in the character of the population in some of the towns, during the last half of the ten years, seemed to have an influence in the direction of increase of the death rate in those towns.

### TABLE XLV.

| TOWNS AND DIVISIONS OF THE STATE. | DEATHS. | | |
|---|---|---|---|
| | Average to population one in every | Per 1000. | Average Age of all. |
| Barrington | 83.45 | 11.9 | 48.12 |
| Bristol | 64.37 | 15.5 | 34.66 |
| Warren | 61.05 | 16.4 | 31.98 |
| BRISTOL COUNTY | 64.74 | 15.4 | 33.77 |
| Coventry | 68.15 | 14.7 | 40.77 |
| East Greenwich | 62.40 | 16.3 | 40.17 |
| West Greenwich | 58.42 | 17.1 | 45.78 |
| Warwick | 79.49 | 12.6 | 29.15 |
| KENT COUNTY | 72.41 | 13.8 | 35.29 |
| Jamestown | 116.19 | 8.6 | 51.62 |
| Little Compton | 82.57 | 12.1 | 53.69 |
| Middletown | 86.61 | 11.5 | 45.03 |
| New Shoreham | 103.33 | 9.6 | 37.39 |
| Portsmouth | 87.64 | 11.4 | 47.32 |
| Tiverton | 73.72 | 13.6 | 43.05 |
| TOWNS, NEWPORT CO | 85.61 | 11.7 | 45.66 |
| NEWPORT CITY | 68.73 | 14.5 | 36.51 |
| NEWPORT COUNTY | 73.97 | 13.5 | 39.35 |
| Burrillville | 77.53 | 12.9 | 33.92 |
| * Cranston | 54.43 | 18.2 | 37.72 |
| Cumberland | 88.64 | 11.3 | 30.56 |
| East Providence | 73.24 | 13.6 | 28.26 |
| Foster | 102.20 | 9.8 | 53.14 |
| Glocester | 62.03 | 16.1 | 44.93 |
| Johnston | 67.10 | 14.9 | 30.94 |
| Lincoln | 55.21 | 18.1 | 22.14 |
| North Providence | 69.18 | 14.5 | 29.60 |
| North Smithfield | 78.17 | 12.6 | 32.15 |
| Pawtucket | 55.22 | 18.2 | 29.81 |
| Scituate | 74.97 | 13.2 | 40.39 |
| Smithfield | 67.86 | 14.7 | 36.12 |
| Woonsocket | 51.66 | 19.2 | 24.49 |
| TOWNS, PROVIDENCE CO | 62.68 | 15.9 | 29.15 |
| PROVIDENCE CITY | 50.24 | 19.9 | 27.76 |
| PROVIDENCE COUNTY | 59.60 | 16.7 | 28.37 |
| Charlestown | 69.80 | 14.2 | 54.33 |
| Exeter | 85.22 | 11.7 | 51.58 |
| Hopkinton | 70.41 | 14.2 | 40.78 |
| North Kingstown | 63.38 | 15.8 | 40.76 |
| South Kingstown | 70.43 | 14.1 | 43.99 |
| Richmond | 58.46 | 17.1 | 38.18 |
| Westerly | 89.68 | 11.1 | 34.66 |
| WASHINGTON COUNTY | 72.71 | 13.7 | 40.52 |
| WHOLE STATE | 62.59 | 15.9 | 30.68 |

* Including deaths in State Institutions.

The following Table shows the average age of the decedents in each of the larger divisions of the State, in each of the last five years, and also the average of each of five periods of five years each, comprising the twenty-five years from 1858 to 1882, inclusive:

### TABLE XLVI.

| DIVISIONS OF THE STATE. | 1884. | 1883. | 1882. | 1881. | 1880. | 1878–1882. 5 years. | 1873–1877. 5 years. | 1868–1872. 5 years. | 1863–1867. 5 years. | 1858–1862. 5 years. |
|---|---|---|---|---|---|---|---|---|---|---|
| Bristol County................ | 37.62 | 39.24 | 39.31 | 37.74 | 36.43 | 36.68 | 33.61 | 35.12 | 34.78 | 35.56 |
| Kent County.................. | 39.21 | 41.36 | 39.73 | 34.46 | 36.54 | 37.11 | 36.20 | 34.77 | 35.81 | 32.15 |
| Newport County............... | 40.20 | 40.66 | 37.00 | 40.03 | 42.38 | 39.21 | 40.68 | 40.04 | 33.54 | 35.01 |
| Providence County Towns..... | 32.52 | 34.56 | 31.83 | 30.35 | 27.40 | 30.60 | 28.46 | 25.26 | 29.16 | 28.44 |
| Providence City............... | 31.51 | 33.18 | 31.88 | 30.98 | 29.67 | 29.50 | 27.19 | 25.45 | 28.50 | 25.78 |
| Washington County........... | 42.13 | 47.42 | 40.32 | 41.13 | 37.82 | 41.01 | 41.14 | 39.67 | 30.87 | 34.21 |
| Whole State.................... | 33.76 | 35.55 | 33.50 | 32.55 | 30.86 | 31.84 | 30.28 | 31.66 | 30.75 | 29.42 |

An examination of the above Table will present further evidence of the statement made on a previous page, that the average age of decedents in Rhode Island had increased considerably during the last twenty-five or twenty-seven years, notwithstanding the diminution during 1884.

The average age of the last three years, 1882–1884, inclusive, was 34.27 years, as against 31.84 years, the largest average of any one of the five year periods, and which was also the last, and as against the first five year period with an average of 29.42 years.

## PERCENTAGE OF DECEDENTS BY DIFFERENT AGES.

In Table VII, on pages 10 to 15, inclusive, will be found the number of deaths in 1884, in each town and each county, of each sex, and in each period of life, with the percentage of the whole number of deaths in each division to the population of the same, by the census of 1885.

The following Table shows the percentages of decedents in each division of ages, to whole number of deaths, in each of the last six years, and in the aggregate for three periods; one of ten years and seven months, from June 1st, 1852, to December 31st, 1862, inclusive; one of ten years, from 1863 to 1872, inclusive; and one of ten years, from 1873 to 1882, inclusive:

## TABLE XLVII.

| PERIODS OF LIFE. | 1884. | 1883. | 1882. | 1881. | 1880. | 1879. | 10 years. 1873 to 1882. | 10 years. 1862 to 1872. | 10 years, 7 months. 1852 to 1862. |
|---|---|---|---|---|---|---|---|---|---|
| Under 1 year. ......... | 20.1 | 18.1 | 19.7 | 18.5 | 18.4 | 16.1 | 18.9 | 18.0 | 17.6 |
| 1 and under 2.......... | 5.6 | 5.1 | 5.3 | 6.4 | 7.0 | 6.8 | 7.6 | 7.8 | 9.8 |
| 2 and under 5 ......... | 6.6 | 4.4 | 6.5 | 7.9 | 9.2 | 10.1 | 8.4 | 7.9 | 9.6 |
| Total under 5........... | 32.3 | 27.6 | 30.5 | 32.8 | 34.6 | 33.0 | 34.9 | 33.7 | 37.0 |
| 5 and under 10......... | 3.5 | 3.4 | 3.7 | 4.6 | 6.2 | 6.3 | 5.0 | 4.6 | 5.0 |
| 10 and under 20......... | 4.8 | 5.4 | 5.8 | 5.2 | 4.8 | 4.8 | 5.8 | 6.2 | 5.8 |
| 20 and under 30......... | 9.2 | 10.3 | 10.6 | 9.6 | 8.6 | 8.8 | 9.2 | 9.7 | 9.5 |
| 30 and under 40......... | 8.1 | 8.4 | 9.3 | 8.0 | 7.6 | 7.4 | 7.8 | 8.1 | 8.7 |
| 40 and under 50......... | 7.2 | 7.6 | 7.6 | 7.6 | 6.6 | 6.5 | 6.9 | 7.2 | 7.5 |
| 50 and under 60. ....... | 8.1 | 9.0 | 7.3 | 8.2 | 6.7 | 7.1 | 7.2 | 7.3 | 6.7 |
| 60 and under 70......... | 9.1 | 9.2 | 8.4 | 8.8 | 8.5 | 10.0 | 8.2 | 8.3 | 6.9 |
| 70 and under 80......... | 9.5 | 10.5 | 9.7 | 8.6 | 9.4 | 9.0 | 8.8 | 8.4 | 7.3 |
| 80 and under 90......... | 6.9 | 6.5 | 5.6 | 5.4 | 5.7 | 5.5 | 5.1 | 5.4 | 4.6 |
| Over 90 and not stated.. | 1.3 | 2.1 | 1.5 | 1.2 | 1.3 | 1.6 | 1.1 | 1.1 | 1.0 |
| Total.................. | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

An explanation of the reason why the average age of decedents, in 1884 was less than in 1883, will be found in the above Table, by observing that there was a considerably larger proportion of decedents under five years of age in 1884 than in the preceding year.

As may be seen, however, the proportion was less in 1884 than in any preceding years, except in 1882 and 1883.

### COLORED DECEDENTS.

The number of deaths of persons of color in Rhode Island, during 1884, was 187.

In 1883 the number was 166, and in 1882 it was 145.

The deaths of colored persons occurred in the different localities as follows :

| | |
|---|---|
| Providence City | 116 |
| Newport City | 24 |
| Cranston (including State Institutions) | 13 |
| Westerly | 6 |
| Bristol | 5 |
| Charlestown | 4 |
| Exeter,<br>North Kingstown, } 3 each | 6 |
| East Greenwich,<br>Warwick,<br>East Providence,<br>Pawtucket,<br>South Kingstown, } 2 each | 10 |
| New Shoreham,<br>Burrillville,<br>Richmond, } 1 each | 3 |
| Total | 187 |

*Sex.*—There were, of the 187 decedents of color, 88 males and 99 females.

*Season.*—These 187 deaths were in the different months as follows:

| Months. | Deaths. | Months. | Deaths. | Months. | Deaths. | Months. | Deaths. |
|---|---|---|---|---|---|---|---|
| January | 14 | April | 14 | July | 10 | October | 23 |
| February | 17 | May | 14 | August | 19 | November | 11 |
| March | 12 | June | 20 | September | 14 | December | 19 |
| First Quarter | 43 | Second Quarter | 48 | Third Quarter | 43 | Fourth Quarter | 53 |

First six months, 91; Second six months, 96. Total, 187.

The following summary will show the proportions, to the whole colored population, of each of the events of birth, marriage and death of colored persons, during the seven years from 1878 to 1884, inclusive:

| | One birth in every | One person married in every | One death in every |
|---|---|---|---|
| 1878 | 36.4 | 39.2 | 40.2 |
| 1879 | 39.6 | 51.4 | 37.3 |
| 1880 | 47.1 | 43.3 | 44.0 |
| 1881 | 34.3 | 39.2 | 35.4 |
| 1882 | 36.8 | 44.5 | 45.4 |
| 1883 | 33.4 | 63.3 | 39.7 |
| 1884 | 34.8 | 46.0 | 34.5 |

The following exhibit will show the number of births, marriages and deaths among the colored population of Rhode Island, in each of the last twenty-four years, from 1861 to 1884, inclusive, and also the aggregates of the same:

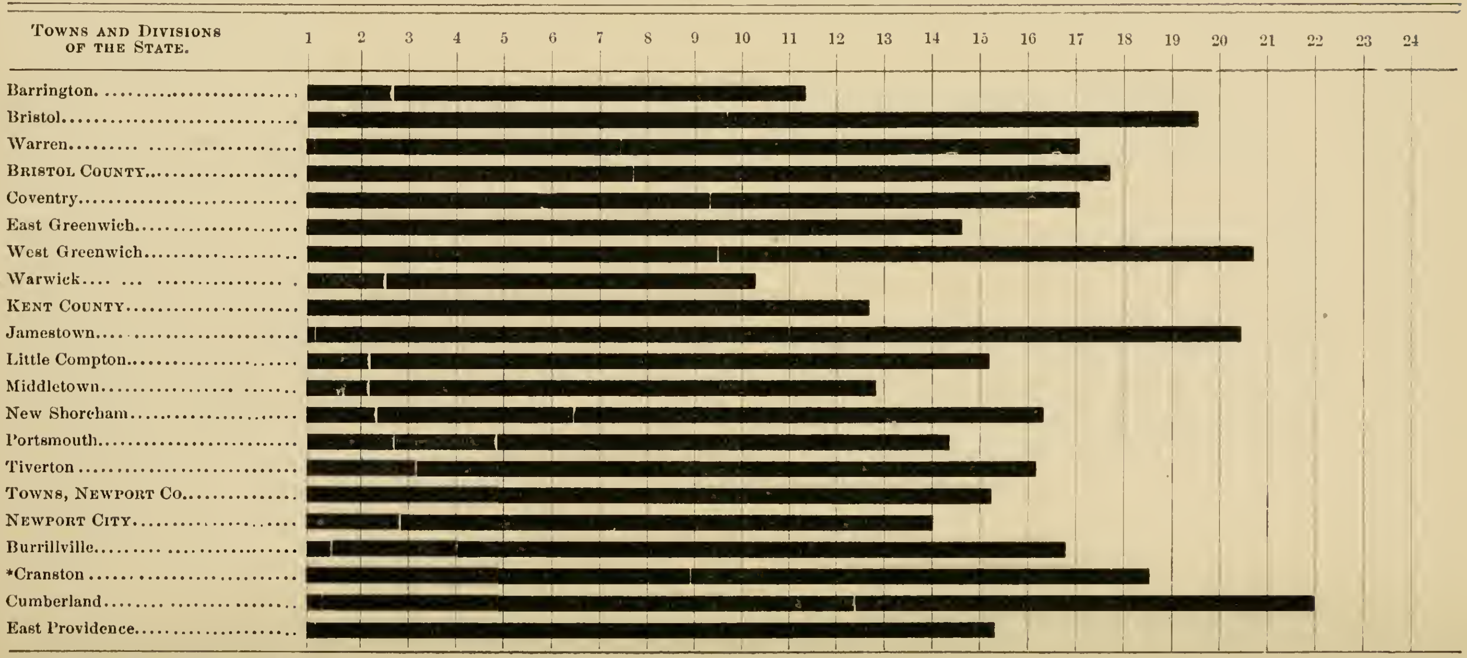
### COLORED POPULATION.

| | | | |
|---|---|---|---|
| 1861 | 97 births | 30 marriages | 109 deaths. |
| 1862 | 96 births | 23 marriages | 90 deaths. |
| 1863 | 73 births | 68 marriages | 104 deaths. |
| 1864 | 69 births | 35 marriages | 121 deaths. |
| 1865 | 87 births | 51 marriages | 129 deaths. |
| 1866 | 124 births | 65 marriages | 123 deaths. |
| 1867 | 144 births | 61 marriages | 105 deaths. |
| 1868 | 147 births | 84 marriages | 111 deaths. |
| 1869 | 136 births | 70 marriages | 133 deaths. |
| 1870 | 158 births | 70 marriages | 128 deaths. |
| 1871 | 146 births | 64 marriages | 116 deaths. |
| 1872 | 171 births | 76 marriages | 184 deaths. |
| 1873 | 163 births | 69 marriages | 160 deaths. |
| 1874 | 170 births | 80 marriages | 151 deaths. |
| 1875 | 156 births | 76 marriages | 169 deaths. |
| 1876 | 170 births | 59 marriages | 156 deaths. |
| 1877 | 168 births | 64 marriages | 160 deaths. |
| 1878 | 172 births | 80 marriages | 156 deaths. |
| 1879 | 159 births | 61 marriages | 168 deaths. |
| 1880 | 140 births | 76 marriages | 153 deaths. |
| 1881 | 192 births | 84 marriages | 186 deaths. |
| 1882 | 179 births | 74 marriages | 145 deaths. |
| 1883 | 197 births | 52 marriages | 166 deaths. |
| 1884 | 185 births | 70 marriages | 187 deaths. |
| Total, 24 years | 3,499 births. | 2,542 marriages | 3,410 deaths. |

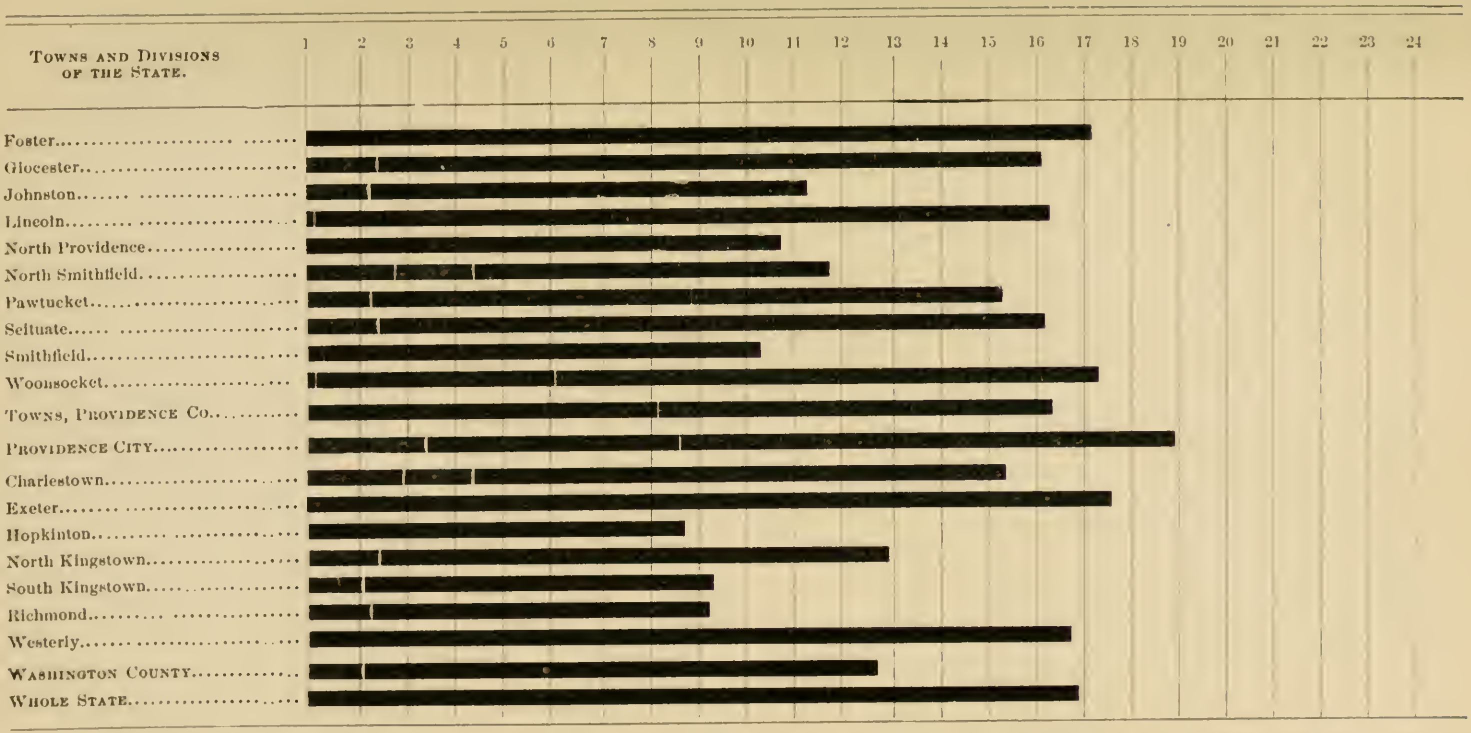
## DEATH RATES.

*Diagram showing the number of deaths in each 1000 of the population, in each town and each county in the State, during the year 1884, computed by the Census of 1885.*

For explanation see foot note on next page.



* Excluding State Institutions.



The figures at the top of the perpendicular lines indicate, in whole numbers, the number of deaths during the year in every 1000 persons. The spaces are fractional parts of one. For instance, the heavy horizontal line against Barrington reaches nealy half way across the space between the perpendicular lines 11 and 12. It shows the death rate of Barrington, in 1884, was about eleven and one-half in every 1000 of the population, according to the census of 1885.

# CAUSES OF DEATH, 1884.

The statistics of the causes of death in Rhode Island, in 1884, may be found in Tables VIII, IX, X and XII. The whole number of deaths, as previously stated, was 5,141. The number of which the cause of death was reported was 5,099, and the number of which the cause was not stated was 42.

The following Table shows the number of deaths in 1884, in each large division of the State, and the number and proportion in each division of which the cause was reported unknown:

### Table XLVIII.

| 1884. | Bristol County. | Kent County. | Newport County Towns. | Providence County Towns. | Washington County. | Newport City. | Providence City. | Whole State. |
|---|---|---|---|---|---|---|---|---|
| Number of deaths ......... .. | 201 | 275 | 134 | 274 | 1,742 | 2,233 | 282 | 5,141 |
| Cause not stated . ... ....... | 2 | 7 | 3 | 2 | 19 | 6 | 3 | 42 |
| One in..... ................... | 100.0 | 40.0 | 44.6 | 137.0 | 91.7 | 372.1 | 94.0 | 122.4 |

In the Thirty-First Registration Report it was observed that "It is very gratifying to be able to remark that the proportion of deaths returned, during 1883, with cause of same unknown, was less than during any year since the commencement of systematic registration." The number during that year was 186. During the year 1882 it was 282. It may well be remarked in this Report that it is doubly gratifying to learn that the facts of death, during 1884, have been so completely returned. The circumstance is entirely unprecedented, and it is hardly to be expected that so small a proportion will become the rule.

## TABLE XLIX.

*Showing the proportion of deaths reported, with "cause unknown," in each division of the State, and in the whole State, in each of the last twenty-two years, from 1863 to 1884, inclusive.*

| YEARS. | Bristol County. | Kent County. | Newport County. | Providence County Towns. | Providence City. | Washington County. | Whole State. |
|---|---|---|---|---|---|---|---|
| 1863, One in every.................... | 16.5 | 11.2 | 25.5 | 6.9 | 46.7 | 24.7 | 14.7 |
| 1864, One in every.................... | 57.0 | 12.6 | 11.6 | 8.5 | 45.7 | 47.6 | 16.1 |
| 1865, One in every.................. | 64.3 | 27.4 | 13.4 | 8.2 | 55.0 | 32.9 | 16.4 |
| 1866, One in every.................... | 163.0 | 11.4 | 22.4 | 9.5 | 45.0 | 23.3 | 17.3 |
| 1867, One in every.................. | ........ | 13.6 | 34.5 | 7.4 | 64.0 | 14.3 | 14 8 |
| 1868, One in every.................... | 32.3 | 5.0 | 20.3 | 5.2 | 46.2 | 10.1 | 10.1 |
| 1869, One in every.................... | 41.2 | 5.8 | 52.8 | 5.3 | 83.6 | 16.1 | 11.3 |
| 1870, One in every.................... | ........ | 19.3 | 23.6 | 11.8 | 90.2 | 26.9 | 23.6 |
| 1871, One in every,.................. | 151.0 | 81.2 | 7.9 | 8.4 | 83.6 | 9.8 | 13.0 |
| 1872, One in every.................... | 13.3. | 5.8 | 10.0 | 6.8 | 72.8 | 9.8 | 11.3 |
| 1873, One in every.................... | ....... | 16.0 | 25.4 | 9.8 | 102.5 | 27.5 | 20.3 |
| 1874, One in every.................... | 54.0 | 15.2 | 14.0 | 17.2 | 73.7 | 21.2 | 27.8 |
| 1875, One in every.................. | 55.0 | 7.4 | 15.6 | 13.7 | 91.2 | 11.9 | 20.9 |
| 1876, One in every.................... | 11.5 | 7.9 | 18.5 | 9.9 | 124.3 | 22.8 | 19.3 |
| 1877, One in every.................... | ........ | 17.7 | 9.7 | 11.9 | 323.0 | 16.0 | 23.2 |
| 1878, One in every.................... | 32.1 | 7.4 | 9.0 | 13.7 | 124.2 | 21.7 | 21.1 |
| 1879, One in every.................... | 16.6 | 9.2 | 12.4 | 9.5 | 225.1 | 8.6 | 17.6 |
| 1880, One in every... ............... | 21.9 | 23.5 | 13.5 | 10.5 | 122.3 | 17.8 | 20.7 |
| 1881, One in every.................... | 204.0 | 13.0 | 11.2 | 7.3 | 143.0 | 6.5 | 14.4 |
| 1882, One in every.................... | 37.6 | 11.6 | 10.9 | 10.6 | 187.0 | 7.7 | 18.8 |
| 1883, One in every...... ............ | 40.4 | 15.9 | 15.0 | 15.3 | 392.8 | 17.0 | 28.4 |
| 1884, One in every.................... | 100.0 | 40.0 | 81.6 | 91.7 | 372.1 | 94.0 | 122.4 |

The following summary will show the proportion of all deaths reported with cause unknown, to whole number of deaths, in each of the several divisions, during the last twenty-two years:

Bristol County.................................19 6 deaths, *cause unknown*, in every 1,000 decedents.
Kent County....................................58.4 deaths, *cause unknown*, in every 1,000 decedents.
Newport County........................ ..50.0 deaths, *cause unknown*, in every 1,000 decedents.
Providence County Towns...................75.0 deaths, *cause unknown*, in every 1,000 decedents.
Providence City.............................. 7.6 deaths, *cause unknown*, in every 1,000 decedents.
Washington County. ......................45.0 deaths, *cause unknown*, in every 1,000 decedents.
Whole State...................................43.5 deaths, *cause unknown*, in every 1,000 decedents.

The proportion of deaths in the whole State, reported with cause unknown during the first ten of the above twenty-two years, that is, from 1863 to 1872, inclusive, was one in every 14.8, or 67.6 in every one thousand decedents.

During the twelve following years, that is, from 1873 to 1884, inclusive, the proportion of deaths returned, with statement of cause unknown, was one in every 29.6, or 33.8 in every one thousand decedents.

The following Table gives the number of deaths in Rhode Island, from each of thirteen principal causes, showing the order in regard to number, in each of the last five years; and also the aggregates and proportions of the same causes of death, for thirty years and seven months, from June 1st, 1852, to December 31st, 1882:

## TABLE L.

*Showing the order in regard to number and proportion of decedents from thirteen principal causes of death.*

| 1884. | | 1883. | | 1882. | | 1881. | | 1880. | | 1879. | | June 1st, 1852, to Dec. 31st, 1882—30 yrs. 7 mos. | | Per 1,000 of whole No. of deaths, 30 years, 7 months. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Whole Number | 5,141 | Whole Number | 5,282 | Whole Number | 5,074 | Whole Number | 5,016 | Whole Number | 4,829 | Whole Number | 4,472 | Whole Number | 101,230 | |
| Consumption | 739 | Consumption | 766 | Consumption | 737 | Consumption | 706 | Consumption | 642 | Consumption | 637 | Consumption | 16,025 | 158.3 |
| Pneumonia and Conges. of Lungs | 363 | Pneumonia and Conges. of Lungs | 400 | Pneumonia and Conges. of Lungs | 344 | Pneumonia and Conges. of Lungs | 327 | Scarlatina | 468 | Pneumonia and Conges. of Lungs | 317 | Pneumonia and Conges. of Lungs | 6,099 | 60.2 |
| Cholera Infantum | 325 | Heart, Diseases of | 325 | Cholera Infantum | 325 | Heart, Diseases of | 264 | Pneumonia and Conges. of Lungs | 364 | Scarlatina | 311 | Old Age | 5,408 | 53.4 |
| Apoplexy and Paralysis | 298 | Apoplexy and Paralysis | 275 | Old Age | 283 | Old Age | 247 | Old Age | 273 | Diphtheria | 259 | Cholera Infantum | 5,143 | 50.8 |
| Old Age | 293 | Old Age | 275 | Apoplexy and Paralysis | 265 | Cholera Infantum | 240 | Cholera Infantum | 247 | Apoplexy and Paralysis | 220 | Scarlatina | 4,398 | 43.4 |
| Heart, Diseases of | 285 | Fevers, Typhoid, &c | 258 | Heart, Diseases of | 255 | Diphtheria | 216 | Heart, Diseases of | 231 | Old Age | 220 | Dysentery and Diarrhœa | 4,310 | 41.5 |
| Diarrhœa and Dysentery | 194 | Cholera Infantam | 242 | Fevers, Typhoid, &c | 229 | Brain, Diseases of | 179 | Apoplexy and Paralysis | 215 | Heart, Diseases of | 202 | Heart, Diseases of | 3,947 | 39.0 |
| Accidents | 180 | Diarrhœa and Dysentery | 184 | Brain, Diseases of | 173 | Apoplexy | 146 | Fevers, Typhoid, &c | 158 | Cholera Infantum | 161 | Fevers, Typhoid, &c | 3,755 | 37.1 |
| Fevers, Typhoid, &c | 165 | Brain, Diseases of | 179 | Accidents | 166 | Cancers | 145 | Diphtheria | 152 | Cancer (all kinds) | 125 | Apoplexy and Paralysis | 3,527 | 34.8 |
| Cancers | 156 | Cancers | 169 | Dysentery and Diarrhœa | 158 | Fevers, Typhoid, &c | 143 | Accidents | 137 | Fevers, Typhoid, &c | 123 | Accidents (all kinds) | 3,018 | 30.8 |
| Brain, Diseases of | 148 | Accidents | 153 | Cancers | 132 | Accidents | 142 | Convulsions, &c | 133 | Convulsions, &c | 104 | Diphtheria* | 2,949 | *29.1 |
| Convulsions | 139 | Convulsions | 126 | Convulsions | 121 | Scarlatina | 138 | Cancers | 125 | Accidents | 102 | Convulsions and Fits | 2,203 | 21.7 |
| Diphtheria | 119 | Diphtheria | 95 | Diphtheria | 101 | Dysentery and Diarrhœa | 119 | Dysentery and Diarrhœa | 98 | Croup | 96 | Croup | 2,013 | 19.8 |

* 25 years, 1858 to 1882, inclusive.

Table L shows how closely pneumonia follows consumption, from year to year, as a cause of death.

In 1880, when scarlatina had such large and fatal epidemic prevalence in Providence city and surrounding towns, pneumonia prevailed only as secondary, in point of mortality, to that disease.

It is not unusual that some important disease should remain in abeyance, or prevail in largely reduced numbers, during the unusual or epidemic prevalence of some other disease, important in regard to severity and fatality.

And so, in 1877 and 1878, diphtheria took second place as a cause of death. But in the course of years pneumonia maintains its preeminence in regard to fatality, second only to consumption.

Cholera infantum prevailed rather largely in 1884, jumping from seventh place, in 1883, to third place in 1884.

Apoplexy and paralysis also, as may be seen, reached an important point in regard to proportion in 1884, exhibiting in numbers a larger mortality than ever before reported.

## TABLE LI.

*A summary of Deaths in Rhode Island in 1884, from twenty leading causes, showing the Number, Sex, Parentage, Season, Ages and Localities.*

| | | Accidents. | Apoplexy and Paralysis. | Brain, Diseases of. | Bronchitis. | Cancer. | Cholera Infantum. | Cousumption. | Croup. | Diarrhœa. | Diphtheria. | Dysentery. | Fevers, Typhoid, &c. | Heart, Diseases of. | Hooping Cough. | Kidneys, Disease of. | Liver Disease of. | Old Age. | Pneumonia and Congestion of Lungs. | Scarlatina. | Stomach, Diseases of. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of decedents from each cause. | | 180 | 297 | 148 | 118 | 156 | 325 | 739 | 80 | 113 | 119 | 40 | 165 | 285 | 43 | 118 | 48 | 293 | 363 | 97 | 38 |
| SEX. | Males | 135 | 135 | 90 | 58 | 39 | 177 | 322 | 40 | 55 | 65 | 19 | 83 | 135 | 17 | 53 | 22 | 101 | 167 | 39 | 16 |
| | Females | 45 | 163 | 58 | 60 | 117 | 148 | 417 | 40 | 58 | 54 | 21 | 82 | 150 | 26 | 65 | 26 | 192 | 196 | 58 | 22 |
| PAR'AGE. | American | 85 | 176 | 77 | 48 | 88 | 139 | 277 | 32 | 53 | 47 | 16 | 78 | 163 | 23 | 66 | 23 | 196 | 192 | 41 | 19 |
| | Foreign | 95 | 122 | 71 | 70 | 68 | 186 | 462 | 48 | 60 | 72 | 24 | 87 | 122 | 20 | 52 | 25 | 97 | 171 | 56 | 19 |
| SEASON. | January | 14 | 31 | 15 | 9 | 10 | 3 | 57 | 11 | 4 | 8 | .... | 10 | 22 | .... | 11 | 3 | 24 | 45 | 6 | 5 |
| | February | 6 | 18 | 7 | 16 | 12 | 4 | 49 | 6 | 2 | 5 | .... | 9 | 13 | .... | 8 | 6 | 21 | 46 | 5 | 3 |
| | March | 16 | 22 | 12 | 11 | 13 | 2 | 61 | 8 | 3 | 12 | 1 | 6 | 26 | .... | 13 | 6 | 24 | 39 | 4 | 2 |
| | April | 19 | 31 | 13 | 11 | 9 | .... | 75 | 8 | 5 | 2 | .... | 10 | 26 | 1 | 7 | 3 | 26 | 50 | 4 | 2 |
| | May | 16 | 17 | 9 | 12 | 16 | 1 | 69 | 2 | .... | 5 | 2 | 10 | 38 | 3 | 11 | 4 | 23 | 34 | 8 | 3 |
| | June | 22 | 22 | 6 | 4 | 15 | 13 | 53 | .... | 9 | 1 | .... | 7 | 18 | 3 | 8 | 3 | 18 | 14 | 8 | 2 |
| | July | 21 | 23 | 11 | 9 | 9 | 94 | 53 | 3 | 22 | 2 | 8 | 11 | 17 | 7 | 5 | 3 | 18 | 12 | 3 | 1 |
| | August | 10 | 26 | 18 | 9 | 12 | 113 | 70 | 2 | 27 | 9 | 6 | 14 | 19 | 12 | 9 | 2 | 22 | 3 | 5 | 4 |
| | September | 11 | 29 | 19 | 3 | 13 | 61 | 64 | 4 | 17 | 12 | 12 | 24 | 30 | 5 | 12 | 4 | 28 | 10 | 6 | 3 |
| | October | 18 | 25 | 9 | 10 | 14 | 25 | 64 | 7 | 15 | 15 | 8 | 37 | 26 | 6 | 9 | 5 | 45 | 28 | 17 | 6 |
| | November | 15 | 18 | 12 | 9 | 24 | 3 | 54 | 13 | 6 | 24 | 2 | 18 | 27 | 3 | 13 | 3 | 23 | 34 | 19 | 4 |
| | December | 12 | 36 | 17 | 15 | 9 | 6 | 70 | 16 | 3 | 24 | 1 | 9 | 23 | 3 | 12 | 6 | 21 | 48 | 12 | 3 |

## TABLE LI.—Continued.

*A summary of Deaths in Rhode Island in 1884, from twenty leading causes, showing the Number, Sex, Parentage, Season, Ages and Localities.*

| | | Accidents. | Apoplexy and Paralysis. | Brain, Diseases of. | Bronchitis. | Cancer. | Cholera Infantum. | Consumption. | Croup. | Diarrhœa. | Diphtheria. | Dysentery. | Fevers, Typhoid, &c. | Heart, Diseases of. | Hooping Cough. | Kidneys, Disease of. | Liver, Disease of. | Old Age. | Pneumonia and Congestion of Lungs. | Scarlatina. | Stomach, Diseases of. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AGES. | Under 5 years | 39 | 6 | 77 | 53 | 1 | 325 | 37 | 64 | 70 | 84 | 14 | 16 | 7 | 41 | 1 | 4 | .... | 103 | 68 | 1 |
| | 5 and under 10 | 10 | 3 | 15 | 2 | .... | .... | 4 | 14 | 1 | 24 | 3 | 8 | 2 | 2 | 3 | 1 | .... | 14 | 24 | 1 |
| | 10 " " 15 | 9 | .... | 2 | .... | .... | .... | 16 | .... | .... | 2 | .... | 13 | 4 | .... | .... | .... | .... | 5 | 3 | .... |
| | 15 " " 20 | 10 | 1 | 5 | 1 | .... | .... | 70 | .... | 1 | 4 | 1 | 19 | 2 | .... | 3 | .... | .... | 11 | .... | .... |
| | 20 " " 30 | 22 | 7 | 2 | 2 | 2 | .... | 237 | 1 | 1 | 4 | 1 | 47 | 25 | .... | 7 | 1 | .... | 23 | 1 | 2 |
| | 30 " " 40 | 17 | 16 | 4 | 1 | 12 | .... | 153 | 1 | 4 | .... | 4 | 22 | 21 | .... | 24 | 5 | .... | 34 | 1 | 4 |
| | 40 " " 50 | 19 | 21 | 6 | 2 | 30 | .... | 98 | .... | 4 | .... | 1 | 9 | 32 | .... | 23 | 10 | .... | 24 | .... | 3 |
| | 50 " " 60 | 15 | 32 | 10 | 9 | 41 | .... | 57 | .... | 5 | 1 | 3 | 12 | 45 | .... | 19 | 12 | .... | 32 | .... | 9 |
| | 60 " " 70 | 15 | 68 | 15 | 19 | 40 | .... | 37 | .... | 8 | ... | 5 | 10 | 61 | .... | 17 | 7 | 4 | 53 | .... | 8 |
| | 70 " " 80 | 14 | 95 | 8 | 19 | 24 | .... | 23 | .... | 15 | .... | 5 | 5 | 50 | .... | 16 | 6 | 91 | 37 | .... | 5 |
| | 80 and over | 7 | 45 | 3 | 9 | 6 | .... | 7 | .... | 4 | .... | 3 | 3 | 32 | .... | 5 | 2 | 198 | 23 | .... | 4 |
| | Not stated | 3 | 4 | 1 | 1 | .... | .... | .... | .... | .... | .... | .... | 1 | 4 | .... | .... | .... | .... | 4 | .... | 1 |
| LOCALITY. | Bristol County | 5 | 21 | 4 | 7 | 2 | 10 | 21 | 2 | 10 | 8 | .... | 7 | 6 | 5 | 5 | 5 | 16 | 10 | .... | 1 |
| | Kent County | 16 | 14 | 9 | .... | 18 | 12 | 37 | 11 | 2 | 1 | 3 | 7 | 17 | .... | 11 | 3 | 20 | 13 | .... | 1 |
| | Newport County Towns | 5 | 18 | 1 | 2 | 7 | 2 | 10 | 1 | 4 | 5 | 1 | 5 | 12 | ... | 4 | .... | 14 | 3 | .... | 1 |
| | Newport City | 6 | 10 | 7 | 6 | 14 | 24 | 33 | 3 | 2 | 4 | 4 | 7 | 14 | 2 | 8 | 5 | 25 | 14 | 8 | 2 |
| | Providence County Towns | 57 | 108 | 41 | 42 | 41 | 114 | 248 | 29 | 47 | 39 | 19 | 66 | 89 | 6 | 28 | 2 | 106 | 125 | 28 | 7 |
| | Providence City | 76 | 105 | 83 | 62 | 70 | 144 | 344 | 34 | 47 | 58 | 9 | 64 | 137 | 28 | 54 | 31 | 86 | 172 | 57 | 20 |
| | Washington County | 15 | 22 | 3 | .... | 4 | 19 | 46 | .... | 1 | 4 | 4 | 9 | 13 | 2 | 8 | 2 | 26 | 26 | 4 | 6 |

## COMMENTS.

In the following remarks upon several of the principal causes of death, in Rhode Island, during the year 1884, an alphabetical order will be followed, as presented in Table LI.

### DEATHS FROM ACCIDENTS.

The number of deaths from accidental causes of all kinds, reported in Rhode Island, in 1884, was 180. This number is 27 more than during 1883.

Of these 180 deaths 20 were from burns and scalds; 41 by drowning; 31 from falls; 7 from poisoning; 16 from railroad accidents; 12 from asphyxia, and 65 from accidents too numerous to specify.

Of the whole number of deaths by accident 135 were males, and 45 were females; 85 were of American, and 95 were of foreign parentage.

Of the sexes the proportion was 75 per cent. of male decedents, to 25 per cent. of female decedents. Of parentage, 53 per cent. was of foreign, and 47 per cent of American.

The number of deaths in each division of the year was as follows:

| | | | |
|---|---|---|---|
| First Quarter | 36 | Third Quarter | 42 |
| Second Quarter | 57 | Fourth Quarter | 45 |
| First half | 93 | Second half | 87 |
| Whole Year | 180 | | |

In regard to periods of life, the decedents from accidental causes were divided as follows: Under 5 years, 39; 5 and under 10, 10; between 10 and 20, 19; between 20 and 40, 39; between 40 and 60, 34; over 60, 36; and 3, age not stated.

In regard to sectional divisions of the State, 5 of the deaths from accidental causes were in Bristol county; 16 in Kent county; 11 in Newport county; 15 in Washington county, and 133 in Providence county.

The whole number of deaths from accidental causes, in 1884, *in proportion to the whole number of deaths* from specified causes, in the State, was about three and one-half per cent.

### APOPLEXY AND PARALYSIS.

There were 298 deaths from apoplexy and paralysis in Rhode Island, in 1884, according to the returns. The number reported is 23 more than in the year 1883, and 33 more than in 1882.

The following Table will present some of the social and local relations of apoplexy and paralysis, as causes of death, during the last twenty years:

## TABLE LII.

*Showing the whole number and percentage of the Deaths in the State, from Apoplexy and Paralysis combined: and also the Sex and Parentage of the Decedents from these causes, and the number of the same in each of the Counties, from 1865 to 1884, inclusive.*

| YEARS. | Whole Number of Deaths. | APOPLEXY AND PARALYSIS. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Number from Apoplexy and Paralysis. | Per cent. | SEX. | | PARENTAGE. | | DIVISIONS OF THE STATE. | | | | | |
| | | | | Males. | Females. | American. | Foreign. | Bristol County. | Kent County. | Newport County. | Providence County Towns. | Providence City. | Washington County. |
| 1865...... | 3,405 | 100 | 2.93 | 52 | 48 | 81 | 19 | 9 | 8 | 14 | 23 | 38 | 8 |
| 1866...... | 2,970 | 92 | 3.09 | 46 | 46 | 80 | 12 | 8 | 5 | 17 | 24 | 29 | 9 |
| 1867...... | 2,889 | 124 | 4.29 | 59 | 65 | 101 | 23 | 9 | 9 | 13 | 35 | 49 | 9 |
| 1868...... | 2,912 | 111 | 3.81 | 56 | 55 | 86 | 25 | 9 | 6 | 19 | 27 | 46 | 4 |
| 1869...... | 3,382 | 117 | 3.46 | 55 | 62 | 92 | 25 | 12 | 13 | 18 | 20 | 48 | 6 |
| 1870...... | 3,238 | 130 | 4.32 | 68 | 62 | 105 | 25 | 14 | 10 | 10 | 39 | 52 | 5 |
| 1871. .... | 3,344 | 156 | 4.66 | 73 | 83 | 113 | 43 | 10 | 17 | 15 | 40 | 61 | 13 |
| 1872...... | 4,247 | 125 | 2.97 | 62 | 63 | 96 | 29 | 17 | 9 | 10 | 27 | 52 | 10 |
| 1873...... | 4,403 | 134 | 3.01 | 59 | 75 | 109 | 25 | 9 | 8 | 17 | 26 | 57 | 17 |
| 1874 .. | 4,229 | 156 | 3.69 | 84 | 72 | 120 | 36 | 14 | 10 | 16 | 42 | 59 | 15 |
| 1875...... | 4,317 | 166 | 3.61 | 79 | 87 | 133 | 33 | 7 | 13 | 17 | 46 | 75 | 8 |
| 1876...... | 4,116 | 165 | 4.01 | 79 | 86 | 130 | 35 | 13 | 11 | 13 | 45 | 68 | 1 |
| 1877...... | 4,450 | 181 | 4.07 | 87 | 94 | 123 | 58 | 10 | 10 | 16 | 52 | 74 | 19 |
| 1878...... | 4,411 | 188 | 4.23 | 104 | 84 | 145 | 43 | 12 | 16 | 21 | 58 | 66 | 15 |
| 1879...... | 4,472 | 220 | 4.92 | 114 | 106 | 146 | 74 | 12 | 9 | 29 | 71 | 89 | 10 |
| 1880...... | 4,829 | 215 | 4.67 | 109 | 106 | 157 | 58 | 18 | 13 | 22 | 71 | 78 | 13 |
| 1881...... | 5,016 | 244 | 4.86 | 116 | 128 | 170 | 74 | 17 | 15 | 25 | 70 | 101 | 16 |
| 1882...... | 5,074 | 265 | 5.22 | 139 | 126 | 168 | 97 | 15 | 29 | 25 | 65 | 117 | 15 |
| 1883...... | 5,282 | 275 | 5.22 | 138 | 137 | 192 | 83 | 11 | 28 | 22 | 75 | 118 | 21 |
| 1884...... | 5,141 | 298 | 5.80 | 135 | 163 | 176 | 122 | 21 | 14 | 28 | 108 | 105 | 22 |
| Total..... | 82,157 | 3,462 | 4.21 | 1,696 | 1,748 | 2,523 | 939 | 247 | 253 | 366 | 961 | 1,382 | 250 |

The above Table will show, very conclusively, that apoplexy and paralysis have gradually and almost regularly acquired a greater prominence as causes of death.

From a percentage of less than three per hundred of all causes of death, in 1865, the proportion has increased to a percentage nearly twice as large.

### TABLE LIII.

*Showing the ages of Decedents from Apoplexy and Paralysis, in each of the last twenty years.*

| APOPLEXY AND PARALYSIS. | PERIODS OF LIFE. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Under 20. | 20 to 30. | 30 to 40. | 40 to 50. | 50 to 60. | 60 to 70. | 70 to 80. | 80 and over. | Not stated. |
| 1865 | ..... | 3 | 5 | 6 | 19 | 20 | 28 | 19 | ..... |
| 1866 | 1 | 1 | 7 | 16 | 9 | 24 | 27 | 7 | ..... |
| 1867 | 2 | .... | 6 | 6 | 15 | 38 | 40 | 17 | ..... |
| 1868 | 2 | 3 | 3 | 11 | 16 | 27 | 31 | 16 | 2 |
| 1869 | 1 | 1 | 5 | 12 | 20 | 28 | 34 | 15 | 1 |
| 1870 | 4 | 1 | 10 | 9 | 12 | 33 | 41 | 20 | ..... |
| 1871 | 3 | 4 | 7 | 14 | 21 | 46 | 45 | 15 | 1 |
| 1872 | 1 | 4 | 5 | 17 | 20 | 26 | 41 | 11 | ..... |
| 1873 | 2 | 3 | 4 | 14 | 22 | 35 | 37 | 16 | 1 |
| 1874 | 1 | 2 | 9 | 9 | 30 | 39 | 40 | 25 | 1 |
| 1875 | 6 | 2 | 8 | 19 | 23 | 40 | 45 | 22 | 1 |
| 1876 | 4 | 4 | 4 | 13 | 25 | 43 | 49 | 23 | ..... |
| 1877 | 1 | 2 | 9 | 12 | 24 | 50 | 61 | 22 | ..... |
| 1878 | 4 | 2 | 7 | 14 | 41 | 40 | 53 | 26 | 1 |
| 1879 | 4 | 6 | 11 | 18 | 27 | 57 | 59 | 38 | ..... |
| 1880 | 1 | 2 | 8 | 18 | 21 | 59 | 70 | 34 | 2 |
| 1881 | 1 | 7 | 11 | 20 | 36 | 55 | 70 | 42 | 2 |
| 1882 | 4 | 5 | 14 | 28 | 41 | 57 | 77 | 38 | 1 |
| 1883 | 8 | 4 | 11 | 19 | 45 | 56 | 83 | 49 | ..... |
| 1884 | 10 | 7 | 16 | 21 | 32 | 68 | 95 | 45 | 4 |
| Total | 60 | 63 | 160 | 296 | 499 | 841 | 1,015 | 500 | 17 |

It may be of interest to show the proportion of deaths from apoplexy and paralysis in 1884, to the population in each of the different sections of the State, by the census of 1885:

### PROPORTION TO POPULATION.

| | |
|---|---|
| Bristol County | One in every 540 persons. |
| Kent County | One in every 1,544 persons. |
| Newport County | One in every 1,008 persons. |
| Providence County Towns | One in every 950 persons. |
| Providence City | One in every 1,029 persons. |
| Washington County | One in every 1,017 persons. |
| Whole State | One in every 1,020 persons. |

### DISEASES OF THE BRAIN.

Under the head of "Diseases of the Brain," in Table LI, there are included all those diseases returned as "Cerebral Meningitis," "Cerebritis," "Congestion," "Inflammation," and "Diseases of the Brain."

The whole number, 148, is 31 less than in the previous year.

The proportions of deaths from these causes to whole number of deaths from all causes, during each of the last six years, are as follows:

| 1879. | 1880. | 1881. | 1882. | 1883. | 1884. |
|---|---|---|---|---|---|
| 3.72 per cent. | 3.49 per cent. | 3.57 per cent. | 3.60 per cent. | 3.40 per cent. | 2.90 per cent. |

Of the 148 decedents, 90 were males, and 58 were females. In regard to parentage, 77 were of American, and 71 of foreign parentage.

The deaths in the different seasons of the year were as follows:

| | | | |
|---|---|---|---|
| First Quarter | 34 | Third Quarter | 48 |
| Second Quarter | 28 | Fourth Quarter | 38 |
| First half | 62 | Last half | 86 |
| Whole number | 148 | | |

The largest number of deaths from diseases of the brain have usually occurred in the third quarter of the year.

Brain diseases occur largely in children. Of the 148 decedents from those causes, in 1884, 77 were under five years of age, and 92 were under ten years of age.

### BRONCHITIS.

The number of decedents, in 1884, whose deaths were reported as having been caused by bronchitis, was 118. This is a larger number than was ever before returned in a single year.

Of the 118 decedents, 58 were males, and 60 were females; or at the rate of 96.6 males to each 100 females.

In relation to parentage, 48 were of American, and 70 of foreign parentage.

## TABLE LIV.

*Showing the whole number of decedents in the State from Bronchitis, with the percentage of whole number of deaths, the Sex, Parentage, and Localities of Occurrence during each of the twenty years from 1865 to 1884, inclusive.*

| YEARS. | Whole Number of Deaths. | BRONCHITIS. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | SEX. | | PARENTAGE. | | DIVISIONS OF THE STATE. | | | | | |
| | | Number of Deaths from Bronchitis. | Per cent. | Males. | Females. | American. | Foreign. | Bristol County. | Kent County. | Newport County. | Providence County Towns. | Providence City. | Washington County. |
| 1865..... | 3,405 | 9 | .27 | 4 | 5 | 6 | 3 | 1 | ...... | 3 | ...... | 5 | ...... |
| 1866...... | 2,970 | 14 | .51 | 3 | 11 | 10 | 4 | ...... | 1 | 2 | 7 | 4 | ...... |
| 1867...... | 2,889 | 19 | .71 | 8 | 11 | 10 | 9 | 1 | 2 | 1 | 5 | 10 | ...... |
| 1868...... | 2,912 | 20 | .76 | 9 | 11 | 7 | 13 | ...... | 1 | 2 | 5 | 10 | 2 |
| 1869...... | 3,382 | 20 | .65 | 8 | 12 | 9 | 11 | ...... | ...... | 1 | 4 | 15 | ...... |
| 1870...... | 3,238 | 26 | .84 | 15 | 11 | 11 | 15 | ...... | ...... | 8 | 8 | 17 | ...... |
| 1871...... | 3,344 | 24 | .78 | 10 | 14 | 11 | 13 | ...... | 1 | 1 | 5 | 17 | ...... |
| 1872...... | 4,247 | 25 | .65 | 10 | 15 | 11 | 14 | 1 | 1 | 1 | 6 | 16 | ...... |
| 1873...... | 4,403 | 27 | .64 | 12 | 15 | 11 | 16 | ...... | ...... | 1 | 7 | 18 | 1 |
| 1874...... | 4,229 | 39 | .96 | 22 | 17 | 12 | 27 | ...... | ...... | ...... | 6 | 32 | 1 |
| 1875...... | 4,317 | 57 | 1.39 | 32 | 25 | 29 | 28 | ...... | ...... | 1 | 21 | 33 | 2 |
| 1876... .. | 4,116 | 57 | 1.46 | 23 | 34 | 26 | 31 | ...... | 2 | ...... | 7 | 46 | 2 |
| 1877...... | 4,450 | 69 | 1.62 | 32 | 37 | 35 | 34 | 1 | 1 | 1 | 22 | 44 | ...... |
| 1878...... | 4,441 | 80 | 1.89 | 30 | 50 | 37 | 43 | 1 | 2 | 6 | 22 | 48 | 1 |
| 1879...... | 4,472 | 62 | 1.47 | 31 | 31 | 31 | 31 | 1 | 1 | 5 | 21 | 34 | ...... |
| 1880...... | 4,829 | 91 | 1.98 | 49 | 42 | 44 | 47 | 1 | 6 | 6 | 21 | 56 | 1 |
| 1881.. .. | 5,016 | 84 | 1.80 | 48 | 36 | 39 | 45 | 1 | 1 | 2 | 25 | 53 | 2 |
| 1882...... | 5,074 | 100 | 2.08 | 39 | 61 | 47 | 53 | 3 | 2 | 6 | 25 | 60 | 4 |
| 1883...... | 5,282 | 111 | 2.10 | 56 | 55 | 51 | 60 | 5 | 2 | 3 | 42 | 57 | 2 |
| 1884...... | 5,141 | 118 | 2.29 | 58 | 60 | 40 | 70 | 7 | ...... | 8 | 42 | 62 | ...... |
| Total, 20 years... | 82,157 | 1,052 | 1.26 | 499 | 553 | 477 | 567 | 23 | 23 | 51 | 301 | 637 | 18 |

It will be noticed that bronchitis as a cause of death, according to the returns, has increased more than eight fold during the last twenty years.

Remarks in relation to the increased proportion of deaths from bronchitis were made at some length in the Thirtieth Registration Report.

Fifty-three of the deaths from bronchitis were under 5 years of age, and 48 were over 60 years of age, leaving but 17 for all other periods of life.

### CANCER.

The decedents whose deaths were reported as caused by cancer, used as a general term, including various kinds, and in all localities, numbered 156.

The percentage of whole number of deaths, in 1884, was 3.05; in 1883 it was 3.20; in 1882 it was 2.75; in 1881 it was 2.90; as against 2.72 in 1880, and 2.96 in 1879.

The varieties of cancer, as reported, may be found in Tables VIII and IX, on pages 17 and 23. They are classed in Table X as follows: Cancer in various localities, or cancer (various), 94; cancer of the breast, 18; of the stomach, 22; of the uterus, 22.

In 1884 the deaths from cancer, in the several seasons of the year, were as follows:

| | | | |
|---|---|---|---|
| First Quarter | 35 | Third Quarter | 34 |
| Second Quarter | 40 | Fourth Quarter | 47 |
| First half | 75 | Last half | 81 |
| Whole number | 156 | | |

### CHILD-BIRTH.

Under the head of "Child-birth" are included puerperal fever, puerperal convulsions, and whatever causes that can only occur as the result of child-birth.

The number reported in 1884 was 47; 27 of which were from the immediate effects of child-birth, including metritis, &c., 8 from puerperal convulsions, and 12 from puerperal fever.

Of the whole number, 17 were of American, and 30 of foreign parentage.

During the year 1884 the deaths occurred as follows:

| | | | |
|---|---|---|---|
| First Quarter | 11 | Second Quarter | 14 |
| Third Quarter | 11 | Fourth Quarter | 11 |

### CHOLERA INFANTUM.

The number of deaths from cholera infantum, according to the returns for 1884, was 325.

Of the 325 decedents, 177 were males, and 148 were females; or 120 males to every 100 females.

Of parentage, 139 were of American, and 186 of foreign parentage; or 120 of foreign to every 100 of American parentage.

In proportion to the population, by the census of 1885, the deaths occurred in the different divisions of the State as follows:

| | |
|---|---|
| Bristol County | One in every 1,133 persons. |
| Kent County | One in every 665 persons. |
| Newport County | One in every 1,086 persons. |
| Providence County Towns | One in every 900 persons. |
| Providence City | One in every 820 persons. |
| Washington County | One in every 1,177 persons. |
| Entire State | One in every 936 persons. |

The following Table shows the whole number of reported deaths from cholera infantum; the sex and parentage of the decedents; and the number in each of the larger divisions of the State, in each of the last twenty years:

### TABLE LV.

| YEARS. | CHOLERA INFANTUM. | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of Deaths. | SEX. | | PARENTAGE. | | DIVISIONS OF THE STATE. | | | | | |
| | | Males. | Females. | American. | Foreign. | Bristol County. | Kent County. | Newport County. | Providence County Towns. | Providence City. | Washington County. |
| 1865 | 145 | 63 | 82 | 61 | 84 | 17 | 7 | 14 | 48 | 50 | 9 |
| 1866 | 110 | 67 | 43 | 50 | 60 | 1 | 7 | 8 | 39 | 47 | 8 |
| 1867 | 117 | 64 | 53 | 62 | 55 | 4 | 3 | 7 | 45 | 49 | 9 |
| 1868 | 154 | 85 | 69 | 66 | 88 | 13 | 4 | 12 | 44 | 70 | 11 |
| 1869 | 151 | 81 | 70 | 79 | 72 | 6 | 15 | 6 | 48 | 65 | 11 |
| 1870 | 213 | 106 | 107 | 95 | 118 | 15 | 15 | 13 | 69 | 93 | 8 |
| 1871 | 172 | 85 | 87 | 82 | 90 | 14 | 12 | 12 | 59 | 62 | 13 |
| 1872 | 391 | 195 | 196 | 167 | 224 | 16 | 16 | 21 | 157 | 151 | 30 |
| 1873 | 285 | 148 | 137 | 165 | 120 | 17 | 14 | 16 | 120 | 99 | 19 |
| 1874 | 265 | 140 | 125 | 115 | 150 | 4 | 12 | 5 | 84 | 134 | 26 |
| 1875 | 318 | 156 | 162 | 155 | 163 | 20 | 16 | 20 | 108 | 136 | 18 |
| 1876 | 250 | 131 | 119 | 105 | 145 | 5 | 12 | 29 | 68 | 124 | 12 |
| 1877 | 259 | 139 | 120 | 96 | 163 | 12 | 12 | 9 | 96 | 122 | 7 |
| 1878 | 168 | 96 | 72 | 73 | 95 | 7 | 14 | 7 | 64 | 71 | 5 |
| 1879 | 161 | 88 | 73 | 71 | 90 | 8 | 16 | 21 | 51 | 50 | 6 |
| 1880 | 247 | 123 | 124 | 109 | 138 | 13 | 11 | 10 | 93 | 100 | 20 |
| 1881 | 240 | 130 | 110 | 102 | 138 | 10 | 22 | 14 | 75 | 102 | 17 |
| 1882 | 325 | 173 | 152 | 133 | 192 | 20 | 11 | 19 | 132 | 130 | 13 |
| 1883 | 242 | 124 | 118 | 104 | 138 | 12 | 7 | 22 | 88 | 108 | 5 |
| 1884 | 325 | 177 | 148 | 139 | 186 | 10 | 12 | 26 | 114 | 144 | 19 |
| Total, 20 years | 4,538 | 2,371 | 2,167 | 2,029 | 2,509 | 224 | 239 | 291 | 1,602 | 1,916 | 266 |

The number of decedents from cholera infantum, during the twenty years from 1865 to 1884, inclusive, was 4,538.

The proportion to total mortality, for the period of twenty years, was 5.5 per cent. For 1884 the proportion was 6.3 per cent.

There were 109 males to every 100 females among the decedents during the twenty years, and 123.6 decedents of foreign parentage to every 100 of American, during the same period.

### CONSUMPTION.

The decedents from consumption, during 1884, numbered 739. In 1883 the number was 766, and in 1882 it was 737.

*Sex.*—Of these 739 decedents 322 were males, and 417 were females; or 130 female decedents to every 100 male decedents; or 43.6 males and 56.4 females in every 100 decedents from consumption.

*Parentage.*—The parentage was as follows: American, 277; foreign, 462; or 160 of foreign parentage to every 100 of American; or 62.5 of foreign and 37.5 of American parentage in every 100 decedents.

During the ten years from 1872 to 1881, inclusive, the whole number of deaths from consumption, as reported, was 6,333. Of this number 2,963 were of American, and 3,370 were of foreign parentage.

The proportions were, therefore, as follows: 113.7 of foreign parentage to every 100 of American; or 46.8 of American parentage, and 53.2 of foreign in every 100 decedents.

During the three years from 1882 to 1884, inclusive, there were 2,242 decedents from consumption in the State. Of these 835 were of American, and 1,407 were of foreign parentage.

The proportions were 168.5 of foreign parentage to each 100 of American; or 37.3 per cent. of the decedents were of American, and 62.7 per cent. were of foreign parentage.

The following summary will show the number of decedents from consumption, in each class of parentage, in each of the last ten years, that is, from 1875 to 1884, inclusive:

| | 1875. | 1876. | 1877. | 1878. | 1879. | 1880. | 1881. | 1882. | 1883. | 1884. |
|---|---|---|---|---|---|---|---|---|---|---|
| American Parentage | 313 | 316 | 296 | 296 | 278 | 287 | 277 | 272 | 286 | 277 |
| Foreign Parentage | 337 | 339 | 365 | 880 | 359 | 355 | 429 | 465 | 480 | 462 |

*Season.*—The largest number of deaths from consumption occurred in the month of April, i. e., 75; in August and December there were 70 each.

In June and July there were 53 each, and in February the smallest number of any month, i. e., 49.

The following summary will show the number in the quarterly periods of 1884:

| | | | |
|---|---|---|---|
| First Quarter | 167 | Third Quarter | 187 |
| Second Quarter | 197 | Fourth Quarter | 188 |
| First Half | 364 | Second Half | 375 |
| Total | 739 | | |

*Ages.*—During 1884, of the 739 decedents from consumption, 237, or nearly one-third, were between the ages of 20 and 30, and 153, or more than one-fifth, were between the ages of 30 and 40.

It will be seen that consumption is most destructive of life between the twentieth and fortieth years of age.

In order to show more concisely the relation of age to mortality from consumption, during 1884, the following synopsis is presented:

| | |
|---|---|
| Under 10 years of age | 41 |
| Between 10 and 20 years | 86 |
| Between 20 and 30 years | 237 |
| Between 30 and 40 years | 153 |
| Between 40 and 50 years | 98 |
| Between 50 and 70 years | 94 |
| Over 70 years | 30 |
| Total | 739 |

*Locality.*—As would naturally be expected, there is a very considerable difference in the proportion of deaths from consumption to the whole number of deaths from known causes, in different years in the same locality, as well as in different localities in the same year.

The following Table shows the total deaths from all reported *known causes*, with the number and percentage of deaths from consumption to the same, in each of the larger divisions of the State, and in the whole State, in each of the last eighteen years, and in the aggregate for a period of twenty-five years, from 1860 to 1884, inclusive:

TABLE LVI.—CONSUMPTION.—*Locality, Number and Percentage.*

| COUNTIES. | 1867. | 1868. | 1869. | 1870. | 1871. | 1872. | 1873. | 1874. | 1875. | 1876. | 1877. | 1878. | 1879. | 1880. | 1881. | 1882. | 1883. | 1884. | Total 25 years. 1860–1884. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BRISTOL COUNTY. | | | | | | | | | | | | | | | | | | | |
| Total Deaths, stated causes.. | 144 | 129 | 165 | 146 | 150 | 184 | 173 | 159 | 162 | 148 | 201 | 187 | 141 | 209 | 203 | 183 | 197 | 199 | 4,135 |
| Consumption.............. | 18 | 21 | 26 | 26 | 16 | 23 | 16 | 18 | 21 | 19 | 27 | 23 | 16 | 19 | 25 | 36 | 19 | 21 | 543 |
| Percentage................ | 12.50 | 16.28 | 15.76 | 17.81 | 10.67 | 12.50 | 8.24 | 11.32 | 12.97 | 12.83 | 13.43 | 12.30 | 11.35 | 9.09 | 12.31 | 19.67 | 9.64 | 10.50 | 13.13 |
| KENT COUNTY. | | | | | | | | | | | | | | | | | | | |
| Total Deaths, stated causes.. | 214 | 168 | 265 | 238 | 281 | 248 | 241 | 252 | 263 | 209 | 251 | 249 | 277 | 293 | 313 | 288 | 283 | 268 | 6,206 |
| Consumption.............. | 56 | 38 | 50 | 46 | 63 | 33 | 42 | 32 | 43 | 28 | 42 | 41 | 38 | 45 | 36 | 51 | 39 | 37 | 1,078 |
| Percentage................ | 26.17 | 22.62 | 18.86 | 19.33 | 22.42 | 13.30 | 17.43 | 12.69 | 16.35 | 13.39 | 16.73 | 16.47 | 13.72 | 15.35 | 11.20 | 17.71 | 13.78 | 13.43 | 17.37 |
| NEWPORT COUNTY. | | | | | | | | | | | | | | | | | | | |
| Total Deaths, stated causes.. | 302 | 289 | 259 | 271 | 214 | 262 | 366 | 221 | 277 | 280 | 243 | 265 | 330 | 324 | 346 | 378 | 401 | 403 | 7,869 |
| Consumption.............. | 47 | 43 | 40 | 37 | 23 | 29 | 44 | 26 | 41 | 45 | 33 | 31 | 45 | 34 | 51 | 46 | 55 | 43 | 1,086 |
| Percentage................ | 15.56 | 14.88 | 15.44 | 13.66 | 10.75 | 11.06 | 12.02 | 11.77 | 14.80 | 16.07 | 13.58 | 11.69 | 13.64 | 10.49 | 14.74 | 12.17 | 13.72 | 10.67 | 13.80 |
| PROVIDENCE CO. TOWNS. | | | | | | | | | | | | | | | | | | | |
| Total Deaths, stated causes.. | 902 | 778 | 912 | 964 | 989 | 1,331 | 1,389 | 1,217 | 1,230 | 1,110 | 1,391 | 1,308 | 1,233 | 1,437 | 1,451 | 1,509 | 1,656 | 1,723 | 28,161 |
| Consumption.............. | 210 | 158 | 180 | 172 | 195 | 321 | 197 | 136 | 201 | 211 | 222 | 229 | 197 | 189 | 220 | 224 | 257 | 248 | 4,799 |
| Percentage................ | 23.28 | 20.29 | 19.74 | 17.84 | 19.72 | 16 73 | 14.18 | 11.42 | 16.34 | 19 01 | 15.96 | 17.51 | 15.98 | 15.35 | 15.16 | 14.83 | 15.52 | 14.13 | 17.04 |

TABLE LVI.—CONSUMPTION.—*Locality, Number and Parentage.*—Continued.

| COUNTIES. | 1867. | 1868. | 1869. | 1870. | 1871. | 1872. | 1873. | 1874. | 1875. | 1876. | 1877. | 1878. | 1879. | 1880. | 1881. | 1882. | 1883. | 1884. | Total 25 years. 1860–1884. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PROVIDENCE CITY. | | | | | | | | | | | | | | | | | | | |
| Total Deaths, stated causes.. | 945 | 1,086 | 1,240 | 1,249 | 1,239 | 1,581 | 1,725 | 1,965 | 1,894 | 1,850 | 1,932 | 1,973 | 2,017 | 2,063 | 2,130 | 2,230 | 2,351 | 2,227 | 39,195 |
| Consumption ............... | 189 | 214 | 210 | 238 | 185 | 242 | 230 | 270 | 297 | 284 | 294 | 305 | 293 | 322 | 344 | 351 | 364 | 344 | 6,374 |
| Percentage................. | 20.00 | 18.71 | 16.95 | 19.06 | 16.74 | 15.31 | 13.33 | 13.74 | 15.68 | 15.35 | 15.22 | 15.46 | 14.53 | 15.60 | 16.15 | 15.73 | 15.48 | 15.43 | 16.26 |
| WASHINGTON COUNTY. | | | | | | | | | | | | | | | | | | | |
| Total Deaths, stated causes.. | 187 | 173 | 241 | 233 | 222 | 265 | 292 | 263 | 284 | 306 | 240 | 249 | 220 | 270 | 226 | 215 | 208 | 279 | 5,711 |
| Consumption ............... | 39 | 38 | 53 | 56 | 35 | 49 | 51 | 44 | 47 | 68 | 43 | 47 | 48 | 33 | 30 | 29 | 32 | 46 | 1,031 |
| Percentage............. ... | 20.86 | 21.96 | 17.84 | 24.04 | 15.76 | 18.49 | 17.47 | 16.73 | 16.55 | 22.22 | 17.91 | 18.88 | 21.82 | 12.22 | 13.27 | 13.49 | 15.40 | 16.28 | 18.05 |
| WHOLE STATE. | | | | | | | | | | | | | | | | | | | |
| Total Deaths, stated causes.. | 2,694 | 2,624 | 3,082 | 3,101 | 3,095 | 3,871 | 4,186 | 4,077 | 4,110 | 3,903 | 4,258 | 4,231 | 4,218 | 4,596 | 4,669 | 4,803 | 5,096 | 5,099 | 91,477 |
| Consumption ............... | 559 | 512 | 549 | 475 | 527 | 597 | 580 | 529 | 650 | 655 | 661 | 676 | 637 | 642 | 706 | 737 | 766 | 739 | 14,911 |
| Percentage............. ... | 20.74 | 19.51 | 17.81 | 18.52 | 17.03 | 15.41 | 13.86 | 12.96 | 15.79 | 16.78 | 15.52 | 15.98 | 15.10 | 14.02 | 15.12 | 15.33 | 15.03 | 14 34 | 16.30 |

Although consumption has less variability from year to year than other diseases, in the proportion of its mortality to the mortality from all other causes, it will nevertheless be seen, by the preceding Tables, that it is also subject to considerable variation.

In Bristol county the proportions have had a range of from about 19.7 per cent. of all specified causes of death, in 1882, to about 8.2 per cent. in 1873. During the period of twenty-five years consumption in that county has been the cause of more than one-eighth of all the deaths from stated causes.

In Kent county more than one-quarter of all deaths reported, in 1867, was returned as caused by consumption, while in 1881 only one-ninth of the mortality had that cause. During the period of a quarter of a century the proportion was more than one-sixth of all reported causes of death.

In Newport county the range has not been so large. The proportions have been between 16.1 per cent., in 1876, and 10.5 per cent. in 1880. For the twenty-five year period somewhat more than one-eighth of all the deaths from stated causes was caused by consumption.

The proportions in Providence county towns have ranged from 23.3 per cent., in 1867, to 11.5 per cent. in 1874. For the long period shown in the Table the proportion was rather more than one-sixth of all deaths from known causes.

In Providence city the largest proportion recorded during the last eighteen years was 20.0 per cent., in 1867, and the smallest, 13.3 per cent., in 1872. During the period of twenty-five years the proportion of deaths from consumption was somewhat less than one-sixth of all deaths from stated causes.

Washington county has usually returned a large proportion of deaths from consumption. The range has been from 24.0 per cent., in 1870, to 12.2 per cent. in 1880. This county shows the largest proportion of mortality from consumption of any localities presented in Table LVI, for the quarter of a century period, that is, more than eighteen in every hundred deaths from known causes.

In the whole State the proportions have not been so variable as in some of the counties. The range has been between 20.7 per cent., in 1867, and 13.0 per cent. in 1874. During the twenty-five years from 1860 to 1884, inclusive, the mortality from consumption has been nearly one-sixth of all deaths from stated causes.

## CONSUMPTION. PROPORTION TO POPULATION.

### 1884.

| | |
|---|---|
| Bristol County | One death from consumption in every 540 persons. |
| Kent County | One death from consumption in every 584 persons. |
| Newport County | One death from consumption in every 656 persons. |
| Providence County Towns | One death from consumption in every 430 persons. |
| Providence City | One death from consumption in every 343 persons. |
| Washington County | One death from consumption in every 486 persons. |
| State | One death from consumption in every 411 persons. |

## CONSUMPTION. PROPORTION BY PARENTAGE.

The population by parentage, by the census of 1885, had not been ascertained at the time of this writing, and the population of 1880 is, therefore, the basis of the following presentation:

### 1884.

| | Population, 1880. | Decedents from consumption in 1884. | Of population one in every. | In every 1,000 |
|---|---|---|---|---|
| American parentage | 139,117 | 277 | 502 | 2.00 |
| Foreign parentage | 137,414 | 462 | 297 | 3.36 |

There were, in every 10,000 of the living population of American parentage, 20.0 deaths from consumption, and in every 10,000 of the population of foreign parentage there were 33.6 deaths from consumption.

## CROUP.

There were 80 decedents from croup, in Rhode Island, in 1884. There were 71 in 1883, 77 in 1882, and 101 in 1881. As a cause of death croup has diminished in importance during the last twenty years, as may be seen in Table LVII.

*Sex.*—Of the 80 decedents from croup, in 1884, there were 40 males and 40 females, a proportion of 100 males to each 100 females, which is not in accordance with the rule of twenty-five years, in which there has been a predominance of males.

*Parentage.*—There were 32 decedents of American parentage, and 48 of foreign parentage. The proportions were in the ratio of 150 of foreign to each 100 of American parentage.

*Age.*—There were 10 of the decedents under one year of age, 15 of one year and under two, 39 of two years and under five, and 14 between five and ten.

Of the 80 deaths from croup, 63 occurred in Providence county.

### DIARRHŒA AND DYSENTERY.

There were 153 decedents from diarrhœa and dysentery, in 1884.

*Sex.*—Of the 153, 74 were males, and 79 were females, or in the ratio of about 93 males to each 100 females.

*Parentage.*—There were, of the 153 decedents, 69 of American parentage, and 84 of foreign parentage, or a proportion of about 122 of foreign parentage to every 100 of American.

*Age.*—There were 84 of the decedents from diarrhœa and dysentery under 5 years of age, and there were 27 over 70 years of age, leaving 42 only for all the years between 5 and 70.

*Locality.*—Of the 153 decedents 122 were in Providence county.

*Season.*—There were 92 of the deaths from diarrhœa and dysentery that occurred during the months of July, August and September.

### DIPHTHERIA.

The number of deaths from diphtheria, in 1884, was 119.

*Sex.*—Of the 119 decedents 65 were males, and 54 were females, or a proportion of 120 males to each 100 females.

*Parentage.*—There were 47 of American, and 72 of foreign parentage, a proportion of about 40 of American and 60 of foreign in each 100 decedents.

*Season.*—There were 25 deaths from diphtheria in the first quarter, 8 in the second quarter, 23 in the third quarter, and 63 in the fourth quarter.

*Age.*—There were 84 under five years of age, and 24 between five and ten. One decedent was 54 years of age.

*Locality.*—Of the 119 decedents 97 were in Providence county, 1 only in Kent county, 4 in Washington county, 9 in Newport county, and 8 in Bristol county.

### CROUP AND DIPHTHERIA.

For the purpose of comparison of the two diseases, from year to year, the following Table will show the number of deaths and the sex of the decedents in Rhode Island, from croup and from diphtheria, in each of the seven years from 1858 to 1864, inclusive, and also the number, the sex and the *parentage* of the decedents from croup and from diphtheria, in each of the last twenty years, from 1865 to 1884, inclusive:

### Table LVII.

| YEARS. | CROUP. | | | | | DIPHTHERIA. | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Number of Deaths. | SEX. | | PARENTAGE. | | Number of Deaths. | SEX. | | PARENTAGE. | |
| | | Males. | Females. | American. | Foreign. | | Males. | Females. | American. | Foreign. |
| 1858 | 69 | 35 | 34 | ...... | ...... | 6 | 1 | 5 | ...... | ...... |
| 1859 | 58 | 37 | 21 | ...... | ...... | 20 | 10 | 10 | ...... | ...... |
| 1860 | 57 | 27 | 30 | ...... | ...... | 67 | 24 | 43 | ...... | ...... |
| 1861 | 58 | 32 | 26 | ...... | ...... | 140 | 66 | 74 | ...... | ...... |
| 1862 | 73 | 34 | 39 | ...... | ...... | 81 | 31 | 50 | ...... | ...... |
| 1863 | 97 | 51 | 46 | ...... | ...... | 155 | 73 | 82 | ...... | ...... |
| 1864 | 105 | 48 | 57 | ...... | ...... | 160 | 67 | 93 | ...... | ...... |
| 1865 | 94 | 44 | 50 | 32 | 62 | 82 | 41 | 41 | 62 | 20 |
| 1866 | 53 | 26 | 27 | 22 | 31 | 64 | 26 | 38 | 36 | 28 |
| 1867 | 50 | 25 | 25 | 21 | 29 | 31 | 14 | 17 | 19 | 12 |
| 1868 | 30 | 13 | 17 | 14 | 16 | 20 | 8 | 12 | 11 | 9 |
| 1869 | 41 | 19 | 22 | 14 | 27 | 33 | 18 | 15 | 19 | 14 |
| 1870 | 53 | 29 | 24 | 25 | 28 | 33 | 17 | 16 | 18 | 15 |
| 1871 | 72 | 39 | 33 | 31 | 41 | 57 | 23 | 34 | 29 | 28 |
| 1872 | 66 | 37 | 29 | 17 | 49 | 48 | 24 | 24 | 35 | 13 |
| 1873 | 68 | 30 | 38 | 35 | 33 | 45 | 24 | 21 | 35 | 10 |
| 1874 | 65 | 39 | 26 | 38 | 27 | 59 | 30 | 29 | 37 | 22 |
| 1875 | 96 | 53 | 43 | 43 | 53 | 33 | 17 | 16 | 18 | 15 |
| 1876 | 102 | 50 | 52 | 42 | 60 | 159 | 77 | 82 | 69 | 90 |
| 1877 | 95 | 48 | 47 | 34 | 61 | 492 | 239 | 253 | 233 | 259 |
| 1878 | 93 | 45 | 48 | 43 | 50 | 435 | 224 | 211 | 201 | 234 |
| 1879 | 96 | 58 | 38 | 40 | 56 | 259 | 121 | 138 | 143 | 116 |
| 1880 | 66 | 32 | 34 | 27 | 39 | 152 | 73 | 79 | 75 | 77 |
| 1881 | 101 | 45 | 56 | 38 | 63 | 216 | 106 | 110 | 118 | 98 |
| 1882 | 77 | 41 | 36 | 32 | 45 | 101 | 48 | 53 | 55 | 46 |
| 1883 | 71 | 32 | 39 | 33 | 38 | 95 | 39 | 56 | 45 | 50 |
| 1884 | 80 | 40 | 40 | 32 | 48 | 119 | 65 | 54 | 47 | 72 |
| Total, 27 years | 1,986 | 1,009 | 977 | 613 | 856 | 3,162 | 1,506 | 1,656 | 1,305 | 1,228 |

During the twenty-seven years the whole number of deaths from croup was 1,986, and the number from diphtheria was 3,162.

For every 100 deaths from croup there were 159.2 deaths from diphtheria.

### CROUP. SEX AND PARENTAGE.

The proportions of the sexes of the decedents from croup, in the aggregate of twenty-seven years, were as follows: To every 100 female decedents there were 103.2 male decedents; or 52 males and 48 females in every 100 decedents.

During the twenty years from 1865 to 1884, inclusive, the decedents from croup, of American parentage, numbered 613, and of foreign parentage 856. To every 100 decedents of American parentage there were 135.6 of foreign parentage; or 41.7 of American and 58.3 foreign in every 100 decedents.

### DIPHTHERIA. SEX AND PARENTAGE.

Of the 3,162 decedents from diphtheria, in the aggregate of twenty-seven years, there were 1,506 males and 1,656 females; a proportion of 110 females to every 100 males; or 52.4 females and 47.6 males in every 100 decedents.

Of the parentage of the decedents from diphtheria, during the last twenty years, 1,305 were of American, and 1,228 of foreign parentage. There were 106.3 of American to every 100 of foreign; or 51.2 of American and 48.8 of foreign parentage in every 100 decedents.

### SEASON AND MORTALITY.

The following Table will show the influence of season, in regard to mortality from croup for thirty years, and diphtheria for twenty-five, in which these diseases may also be compared with scarlatina, also for thirty years, to which they bear resemblance in some respects. The Table will give the whole number of deaths in each month during the periods named, and the average monthly and quarterly percentages of deaths from each disease. The Table is retained for ready reference:

## TABLE LVIII.

| MONTHS. | CROUP. 1853–1882. | | DIPHTHERIA. 1858–1882. | | SCARLATINA. 1853–1882. | |
|---|---|---|---|---|---|---|
| | Number of Deaths. | Per cent. | Number of Deaths. | Per cent. | Number of Deaths. | Per cent. |
| January | 266 | 12.36 | 284 | 9.34 | 595 | 12.21 |
| February | 231 | 10.74 | 208 | 6.84 | 547 | 11.22 |
| March | 185 | 8.60 | 225 | 7.40 | 489 | 10.03 |
| First Quarter | 682 | 31.70 | 717 | 23.58 | 1,631 | 33.46 |
| April | 154 | 7.16 | 185 | 6.08 | 408 | 8.37 |
| May | 102 | 4.74 | 189 | 6.21 | 453 | 9.29 |
| June | 100 | 4.70 | 184 | 6.06 | 393 | 8.06 |
| Second Quarter | 356 | 16.60 | 558 | 18.35 | 1,254 | 25.72 |
| July | 68 | 3.14 | 160 | 5.01 | 289 | 5.93 |
| August | 55 | 2.56 | 188 | 5.90 | 233 | 4.78 |
| September | 142 | 6.60 | 281 | 9.13 | 223 | 4.57 |
| Third Quarter | 265 | 12.30 | 629 | 20.04 | 745 | 15.48 |
| October | 227 | 10.55 | 392 | 12.56 | 303 | 6.21 |
| November | 313 | 14.55 | 394 | 12.96 | 403 | 8.33 |
| December | 308 | 14.30 | 350 | 12.51 | 536 | 11.00 |
| Fourth Quarter | 848 | 39.40 | 1,136 | 38.03 | 1,242 | 25.54 |
| Totals | 2,151 | 100.00 | 3,040 | 100.00 | 4,872 | 100.00 |

### FEVERS, TYPHOID, &C.

The number of decedents, whose deaths were returned as having been caused by "fever" of some form, was 165. Deaths from puerperal fever are not included.

The term "fever" includes the following types of febrile diseases, as may be seen in Table VIII, on page 30: "fevers," unspecified, 8; "bilious," 2; "malarial," 25; "typho-malarial," 4; "typhoid," 126.

The following Table exhibits, for each of the last twenty years, the whole number of deaths in the State; the number and the percentage, and the sex and parentage of the decedents from fevers, and the number in each division of the State:

TABLE LIX.

| YEARS. | Whole Number of Deaths. | TYPHOID FEVER. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Typhoid Fever. | Per cent. | SEX. | | PARENTAGE. | | DIVISIONS OF THE STATE. | | | | | |
| | | | | Males. | Females. | American. | Foreign. | Bristol County. | Kent County. | Newport County. | Providence County Towns. | Providence City. | Washington County. |
| 1865...... | 3,405 | 229 | 6.4 | 114 | 115 | 149 | 80 | 8 | 17 | 22 | 82 | 79 | 21 |
| 1866...... | 2,970 | 150 | 5.0 | 73 | 77 | 82 | 68 | 7 | 5 | 32 | 54 | 45 | 7 |
| 1867...... | 2,889 | 119 | 4.1 | 60 | 59 | 84 | 35 | 9 | 10 | 17 | 47 | 81 | 5 |
| 1868...... | 2,912 | 84 | 2.9 | 45 | 39 | 57 | 27 | 4 | 5 | 7 | 30 | 23 | 15 |
| 1869...... | 3,382 | 101 | 3.0 | 53 | 48 | 79 | 22 | 7 | 7 | 1 | 37 | 33 | 16 |
| 1870...... | 3,238 | 153 | 4.7 | 66 | 87 | 80 | 73 | 5 | 11 | 14 | 57 | 49 | 17 |
| 1871...... | 3,341 | 125 | 3.7 | 60 | 65 | 69 | 56 | 2 | 8 | 10 | 41 | 51 | 13 |
| 1872...... | 4,247 | 179 | 4.2 | 87 | 92 | 91 | 88 | 4 | 12 | 6 | 75 | 65 | 17 |
| 1873...... | 4,403 | 172 | 3.9 | 73 | 99 | 113 | 59 | 4 | 9 | 9 | 61 | 56 | 33 |
| 1874...... | 4,229 | 117 | 2.8 | 57 | 60 | 56 | 61 | 1 | 10 | 3 | 37 | 58 | 8 |
| 1875...... | 4,317 | 147 | 3.4 | 73 | 74 | 90 | 57 | 1 | 4 | 6 | 49 | 69 | 18 |
| 1876...... | 4,116 | 126 | 3.0 | 65 | 61 | 71 | 55 | 5 | 9 | 13 | 44 | 33 | 22 |
| 1877...... | 4,450 | 134 | 3.0 | 63 | 71 | 65 | 69 | 8 | 10 | 8 | 52 | 44 | 12 |
| 1878...... | 4,441 | 150 | 3.4 | 68 | 82 | 77 | 73 | 13 | 13 | 6 | 59 | 47 | 12 |
| 1879...... | 4,472 | 114 | 2.7 | 47 | 67 | 63 | 51 | 4 | 13 | 6 | 41 | 40 | 7 |
| 1880...... | 4,829 | 158 | 3.4 | 74 | 84 | 94 | 64 | 8 | 12 | 5 | 66 | 52 | 15 |
| 1881...... | 5,016 | 143 | 2.8 | 74 | 69 | 74 | 69 | 4 | 13 | 14 | 58 | 41 | 13 |
| 1882...... | 5,074 | 229 | 4.7 | 111 | 118 | 100 | 129 | 6 | 11 | 5 | 56 | 145 | 6 |
| 1883...... | 5,282 | 258 | 4.8 | 146 | 112 | 117 | 141 | 9 | 16 | 10 | 82 | 134 | 7 |
| 1884...... | 5,141 | 165 | 8.2 | 83 | 82 | 78 | 87 | 7 | 7 | 12 | 66 | 64 | 9 |
| Total..... | 82,157 | 3,053 | 3.7 | 1,493 | 1,561 | 1,689 | 1,364 | 116 | 202 | 206 | 1,097 | 1,159 | 273 |

The percentage of deaths from fever, in 1884, in proportion to total mortality, was smaller than in any year since 1881.

*Sex.*—Of the 165 decedents 83 were males, and 82 were females; or a proportion of about 101 males to every 100 females.

During the period of twenty years, 1865 to 1884, inclusive, the propartions of the sexes of the decedents from "fever," in Rhode Island, were 104.6 females to every 100 males.

*Parentage.*—There were 78 decedents from fever, of American parentage, in 1884, and 87 of foreign parentage, a proportion of about 53 of foreign and 47 of American in every 100 decedents.

The following Table shows the number of decedents from fevers, in each division of ages, in each of the last twenty years, in the State of Rhode Island:

## TABLE LX.

| TYPHOID FEVER. | PERIODS OF LIFE. | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| YEARS. | Under 10. | 10 to 15. | 15 to 20. | 20 to 30. | 30 to 40. | 40 to 50. | 50 to 60. | 60 to 70. | 70 to 80. | 80 and over. | Not stated. |
| 1865 | 35 | 18 | 46 | 54 | 30 | 14 | 18 | 7 | 5 | 2 | .... |
| 1866 | 23 | 10 | 21 | 26 | 21 | 16 | 9 | 14 | 10 | .... | .... |
| 1867 | 17 | 6 | 23 | 33 | 12 | 11 | 8 | 4 | 2 | 2 | 1 |
| 1868 | 10 | 7 | 10 | 21 | 8 | 8 | 10 | 4 | 5 | .... | .... |
| 1869 | 10 | 8 | 14 | 28 | 9 | 7 | 9 | 8 | 6 | 2 | .... |
| 1870 | 15 | 13 | 28 | 39 | 16 | 20 | 7 | 7 | 6 | 1 | .... |
| 1871 | 13 | 10 | 20 | 28 | 18 | 16 | 9 | 4 | 5 | 2 | .... |
| 1872 | 17 | 18 | 34 | 54 | 20 | 9 | 12 | 11 | 3 | 1 | .... |
| 1873 | 27 | 12 | 34 | 31 | 25 | 13 | 13 | 7 | 8 | 2 | .... |
| 1874 | 10 | 14 | 26 | 32 | 9 | 5 | 10 | 3 | 6 | 2 | .... |
| 1875 | 23 | 14 | 19 | 43 | 18 | 10 | 10 | 6 | 4 | .... | .... |
| 1876 | 21 | 10 | 15 | 24 | 14 | 9 | 6 | 16 | 6 | 3 | 2 |
| 1877 | 22 | 13 | 13 | 36 | 20 | 8 | 5 | 7 | 2 | 2 | 1 |
| 1878 | 17 | 16 | 27 | 47 | 13 | 11 | 12 | 2 | 3 | 2 | .... |
| 1879 | 19 | 7 | 14 | 26 | 15 | 6 | 3 | 12 | 8 | 3 | 1 |
| 1880 | 25 | 12 | 24 | 43 | 23 | 12 | 10 | 5 | 3 | .... | 1 |
| 1881 | 25 | 9 | 19 | 27 | 14 | 11 | 9 | 12 | 11 | 4 | .... |
| 1882 | 24 | 22 | 44 | 69 | 27 | 14 | 9 | 10 | 9 | 1 | .... |
| 1883 | 36 | 25 | 46 | 75 | 31 | 12 | 11 | 10 | 8 | 2 | 2 |
| 1884 | 24 | 13 | 19 | 47 | 22 | 9 | 12 | 10 | 5 | 3 | 1 |
| Totals | 413 | 257 | 496 | 793 | 365 | 221 | 192 | 159 | 115 | 34 | 9 |

Of the 3,053 decedents from fever, during the last twenty years, 1,166 were under 20 years of age, and 1,158 were between 20 and 40 years of age. There was, therefore, about 38 per cent. of the decedents under 20 years of age, and about the same per cent. between 20 and 40; or about 76 per cent. of the whole number of decedents were under 40 years of age.

## DISEASES OF THE HEART.

The number of decedents from diseases of the heart, as reported in 1884, was 285. The number is 40 less than that of 1883.

*Sex.*—There were 135 male decedents, and 150 female decedents; a proportion of 90 males to every 100 females.

*Parentage.*—Of the 285 decedents from diseases of the heart, in 1884, there were 163 of American parentage, and 122 of foreign, a proportion of 133.6 of American parentage to every 100 of foreign. This is in accordance with the invariable rule of the whole period of registration.

The following Table exhibits, for each of the last twenty years, 1865 to 1884, inclusive, the whole number of deaths in the State; the number and percentage, and the sex and parentage of the decedents from diseases of the heart, and the number of the same in each division of the State:

## TABLE LXI.

| YEARS. | Whole Number of Deaths. | DISEASES OF THE HEART. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | SEX. | | PARENTAGE. | | DIVISIONS OF THE STATE. | | | | | |
| | | Diseases of the Heart. | Per cent. | Males. | Females. | American. | Foreign. | Bristol County. | Kent County. | Newport County. | Providence County Towns. | Providence City. | Washington County. |
| 1865...... | 3,405 | 98 | 2.88 | 51 | 47 | 65 | 33 | 6 | 5 | 8 | 27 | 47 | 5 |
| 1866...... | 2,970 | 115 | 3.87 | 58 | 57 | 90 | 25 | 7 | 8 | 10 | 41 | 40 | 9 |
| 1867...... | 2,889 | 114 | 3.94 | 67 | 47 | 81 | 33 | 4 | 9 | 7 | 37 | 49 | 8 |
| 1868...... | 2,912 | 116 | 3.96 | 58 | 58 | 79 | 37 | 5 | 8 | 12 | 35 | 52 | 4 |
| 1869...... | 3,382 | 128 | 3.78 | 75 | 53 | 79 | 49 | 2 | 13 | 11 | 36 | 62 | 4 |
| 1870...... | 3,238 | 117 | 3.61 | 77 | 40 | 77 | 40 | 4 | 10 | 8 | 35 | 59 | 1 |
| 1871...... | 3,344 | 144 | 4.30 | 78 | 66 | 91 | 53 | 4 | 7 | 8 | 42 | 77 | 6 |
| 1872...... | 4,247 | 189 | 4.45 | 104 | 85 | 119 | 70 | 5 | 9 | 10 | 59 | 83 | 13 |
| 1873...... | 4,403 | 189 | 4.29 | 83 | 106 | 122 | 67 | 4 | 11 | 14 | 48 | 101 | 11 |
| 1874...... | 4,229 | 214 | 5.06 | 109 | 105 | 150 | 64 | 6 | 6 | 28 | 50 | 106 | 18 |
| 1875...... | 4,317 | 186 | 4.31 | 84 | 102 | 113 | 73 | 2 | 13 | 22 | 49 | 88 | 12 |
| 1876...... | 4,116 | 166 | 4.03 | 81 | 80 | 109 | 57 | 9 | 11 | 10 | 38 | 86 | 12 |
| 1877...... | 4,450 | 182 | 4.09 | 94 | 88 | 110 | 72 | 3 | 7 | 9 | 57 | 93 | 13 |
| 1878...... | 4,441 | 166 | 3.73 | 88 | 78 | 109 | 57 | 5 | 11 | 15 | 38 | 83 | 14 |
| 1879...... | 4,472 | 202 | 4.78 | 114 | 88 | 127 | 75 | 8 | 20 | 16 | 38 | 111 | 9 |
| 1880...... | 4,829 | 231 | 5.03 | 125 | 106 | 146 | 85 | 9 | 21 | 29 | 59 | 104 | 9 |
| 1881...... | 5,016 | 264 | 5.65 | 131 | 133 | 154 | 110 | 9 | 21 | 24 | 73 | 121 | 16 |
| 1882...... | 5,074 | 255 | 5.31 | 116 | 139 | 162 | 93 | 8 | 16 | 23 | 55 | 142 | 11 |
| 1883...... | 5,282 | 325 | 6.20 | 167 | 158 | 179 | 146 | 8 | 27 | 30 | 70 | 172 | 18 |
| 1884...... | 5,141 | 285 | 5.60 | 135 | 150 | 163 | 122 | 6 | 16 | 25 | 87 | 139 | 12 |
| Total, 20 years... | 82,157 | 3,686 | 4.48 | 1,900 | 1,786 | 2,305 | 1,381 | 114 | 249 | 309 | 974 | 1,825 | 205 |

*Sex.*—Of the 3,686 persons deceased from diseases of the heart, in the last twenty years, 1,900 were males, and 1,786 were females; or 106.4 males to each 100 females.

*Parentage.*—The remarkable difference in the proportion of deaths from diseases of the heart, in the American and foreign parentage, in the above Table, will scarcely fail to be noticed.

Of the 3,686 decedents, during twenty years, 2,305 were of American parentage, and 1,381 of foreign.

The proportions would therefore stand as follows:

To every 100 of foreign parentage there were about 174 of American; or 63 American, and 37 of foreign parentage in each 100 deaths.

The following Table shows the number of decedents from diseases of the heart, in each divisional period of life, in each of the last twenty years:

### TABLE LXII.

| YEARS. | Under 20. | 20 to 30. | 30 to 40. | 40 to 50. | 50 to 60. | 60 to 70. | 70 to 80. | 80 and over. | Not stated. |
|---|---|---|---|---|---|---|---|---|---|
| 1865 | 14 | 4 | 6 | 7 | 22 | 17 | 19 | 9 | ...... |
| 1866 | 18 | 8 | 14 | 17 | 10 | 23 | 21 | 4 | ...... |
| 1867 | 11 | 11 | 10 | 13 | 22 | 16 | 27 | 4 | ...... |
| 1868 | 15 | 5 | 13 | 11 | 14 | 28 | 25 | 5 | ...... |
| 1869 | 21 | 4 | 14 | 18 | 20 | 22 | 21 | 7 | 1 |
| 1870 | 19 | 6 | 11 | 13 | 20 | 21 | 23 | 3 | 1 |
| 1871 | 9 | 12 | 10 | 19 | 23 | 36 | 28 | 6 | 1 |
| 1872 | 27 | 12 | 22 | 19 | 31 | 36 | 29 | 13 | ...... |
| 1873 | 19 | 11 | 28 | 18 | 25 | 35 | 42 | 9 | 2 |
| 1874 | 20 | 16 | 26 | 21 | 27 | 50 | 40 | 12 | 2 |
| 1875 | 14 | 16 | 25 | 20 | 32 | 29 | 41 | 9 | ...... |
| 1876 | 14 | 10 | 15 | 19 | 20 | 38 | 39 | 10 | 1 |
| 1877 | 15 | 11 | 20 | 18 | 27 | 45 | 33 | 13 | ...... |
| 1878 | 16 | 8 | 18 | 16 | 26 | 36 | 35 | 11 | ...... |
| 1879 | 19 | 9 | 13 | 25 | 33 | 51 | 36 | 16 | ...... |
| 1880 | 15 | 10 | 18 | 23 | 38 | 49 | 49 | 28 | 1 |
| 1881 | 32 | 13 | 26 | 23 | 37 | 49 | 53 | 21 | ...... |
| 1882 | 22 | 17 | 24 | 25 | 36 | 51 | 61 | 17 | 2 |
| 1883 | 39 | 13 | 21 | 33 | 52 | 65 | 76 | 26 | ...... |
| 1884 | 15 | 25 | 21 | 32 | 45 | 61 | 50 | 32 | 4 |
| Total | 374 | 221 | 355 | 400 | 560 | 758 | 748 | 255 | 15 |

The results of twenty years of registration, with record of ages of decedents from diseases of the heart, show in periods of twenty years of life, the following percentages:

| | |
|---|---|
| Under 20 years of age | 10.2 per cent. |
| Between 20 and 40 | 15.6 per cent. |
| Between 40 and 60 | 26.0 per cent. |
| Between 60 and 80 | 40.8 per cent. |
| Over 80 | 7.4 per cent. |
| | 100.0 per cent. |

It will be seen that nearly one-half of all the deaths from diseases of the heart were of persons over sixty years of age.

Diseases of the heart have acquired large importance as a cause of death. From 28.8 in every 1,000 deaths from all causes, in 1865, heart diseases have gradually increased to 56 in every 1,000 in 1884.

## PNEUMONIA.

There were 363 decedents from pneumonia, in 1884. The number is 37 less than in 1883.

In 1875, however, the proportion to whole number of deaths was 9.3 in every hundred, and in 1884 it was 7.1 in every hundred.

*Sex.*—Of the 363 decedents from pneumonia, and including congestion of the lungs, 167 were males, and 196 were females; or 92.3 males to each 100 females.

*Parentage*—By parentage there were 192 of American and 171 of foreign parentage. The proportions of decedents from pneumonia were 112 of American to each 100 of foreign parentage.

*Season.*—There were 180, or about one-half, of the deaths that occurred during the first four months of the year. The largest mortality was 50 in April, and 48 in December.

The following Table shows, for each of the last twenty years, the whole number of deaths reported in Rhode Island; the number and the percentage, with the sex and the parentage of the decedents from pneumonia, and the number in each year, in each division of the State:

## TABLE LXIII.

| YEARS. | Whole Number of Deaths. | PNEUMONIA. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Pneumonia. | Per cent. | SEX. | | PARENTAGE. | | DIVISIONS OF THE STATE. | | | | | |
| | | | | Males. | Females. | American. | Foreign. | Bristol County. | Kent County. | Newport County. | Providence County Towns. | Providence City. | Washington County. |
| 1865...... | 3,405 | 175 | 5.1 | 80 | 95 | 110 | 65 | 8 | 11 | 21 | 49 | 74 | 12 |
| 1866...... | 2,970 | 193 | 6.5 | 94 | 99 | 127 | 66 | 13 | 17 | 13 | 59 | 81 | 10 |
| 1867...... | 2,889 | 172 | 5.9 | 68 | 104 | 103 | 69 | 8 | 12 | 12 | 56 | 68 | 16 |
| 1868...... | 2,912 | 191 | 6.6 | 99 | 92 | 120 | 71 | 9 | 5 | 16 | 54 | 92 | 15 |
| 1869...... | 3,382 | 190 | 5.6 | 104 | 86 | 110 | 80 | 7 | 10 | 10 | 63 | 88 | 12 |
| 1870...... | 3,238 | 182 | 5.6 | 102 | 80 | 96 | 86 | 6 | 12 | 15 | 55 | 78 | 16 |
| 1871...... | 3,344 | 218 | 6.5 | 104 | 114 | 129 | 89 | 12 | 21 | 11 | 68 | 85 | 21 |
| 1872...... | 4,247 | 229 | 5.4 | 119 | 110 | 125 | 104 | 11 | 1 | 9 | 74 | 120 | 14 |
| 1873...... | 4,403 | 234 | 5.3 | 127 | 107 | 143 | 91 | 11 | 9 | 10 | 65 | 123 | 16 |
| 1874...... | 4,229 | 250 | 5.9 | 118 | 132 | 143 | 107 | 6 | 13 | 7 | 73 | 136 | 15 |
| 1875...... | 4,317 | 400 | 9.3 | 199 | 201 | 243 | 157 | 14 | 27 | 25 | 105 | 108 | 31 |
| 1876...... | 4,116 | 339 | 8.2 | 164 | 175 | 162 | 177 | 13 | 23 | 16 | 97 | 163 | 27 |
| 1877...... | 4,450 | 226 | 5.1 | 104 | 122 | 127 | 99 | 10 | 7 | 14 | 81 | 98 | 16 |
| 1878...... | 4,441 | 317 | 7.1 | 143 | 174 | 176 | 141 | 10 | 11 | 18 | 110 | 140 | 28 |
| 1879...... | 4,472 | 311 | 7.4 | 148 | 163 | 163 | 148 | 7 | 15 | 15 | 103 | 156 | 15 |
| 1880...... | 4,829 | 364 | 7.9 | 180 | 184 | 177 | 187 | 26 | 16 | 18 | 92 | 192 | 20 |
| 1881...... | 5,016 | 327 | 6.5 | 177 | 150 | 190 | 137 | 10 | 23 | 17 | 81 | 174 | 22 |
| 1882...... | 5,074 | 344 | 7.2 | 178 | 166 | 163 | 181 | 10 | 22 | 24 | 91 | 176 | 21 |
| 1883...... | 5,282 | 400 | 7.8 | 192 | 208 | 198 | 202 | 19 | 21 | 34 | 108 | 204 | 14 |
| 1884...... | 5,141 | 363 | 7.1 | 167 | 196 | 192 | 171 | 10 | 13 | 17 | 125 | 172 | 26 |
| Total, 20 years... | 82,157 | 5,425 | 6.4 | 2,667 | 2,758 | 2,997 | 2,428 | 220 | 289 | 322 | 1,609 | 2,618 | 367 |

*Sex.*—Of the 5,425 decedents from pneumonia in twenty years, 1865 to 1884, inclusive, 2,667 were males, and 2,758 were females; a proportion of 103.4 females to every 100 males.

*Parentage.*—In relation to parentage, there were of the 5,425 decedents 2,997 of American and 2,428 of foreign; or 123.4 of American parentage to every 100 of foreign.

## TABLE LXIV.

*Exhibiting the number of decedents from pneumonia, in each of the several periods of life, during each of the last twenty years, from 1865 to 1884, inclusive.*

| YEARS. | Under 5. | 5 to 10. | 10 to 15. | 15 to 20. | 20 to 30. | 30 to 40. | 40 to 50. | 50 to 60. | 60 to 70. | 70 to 80. | 80 and over. | Not stated. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1865 | 65 | 4 | 2 | .... | 14 | 11 | 15 | 17 | 21 | 21 | 5 | .... |
| 1866 | 57 | 4 | 4 | 5 | 12 | 10 | 14 | 21 | 25 | 32 | 9 | .... |
| 1867 | 57 | 9 | 2 | 3 | 10 | 11 | 13 | 16 | 25 | 13 | 12 | 1 |
| 1868 | 70 | 4 | 3 | 3 | 15 | 8 | 16 | 13 | 19 | 27 | 13 | .... |
| 1869 | 64 | 11 | 1 | 2 | 11 | 12 | 9 | 28 | 25 | 16 | 11 | .... |
| 1870 | 84 | 6 | 5 | 4 | 6 | 7 | 8 | 14 | 20 | 19 | 8 | 1 |
| 1871 | 71 | 7 | 2 | 7 | 10 | 17 | 16 | 16 | 35 | 17 | 19 | 1 |
| 1872 | 83 | 5 | 1 | 7 | 17 | 20 | 19 | 22 | 24 | 19 | 11 | 1 |
| 1873 | 105 | 4 | 8 | 3 | 10 | 14 | 16 | 17 | 24 | 23 | 10 | .... |
| 1874 | 76 | 9 | 4 | 6 | 17 | 17 | 25 | 21 | 40 | 27 | 8 | .... |
| 1875 | 120 | 9 | 3 | 8 | 22 | 30 | 35 | 39 | 61 | 43 | 28 | 2 |
| 1876 | 116 | 5 | 4 | 3 | 20 | 20 | 32 | 35 | 48 | 39 | 17 | .... |
| 1877 | 79 | 2 | .... | 7 | 15 | 15 | 24 | 27 | 22 | 24 | 9 | 2 |
| 1878 | 115 | 9 | 4 | 10 | 14 | 17 | 28 | 20 | 42 | 45 | 13 | .... |
| 1879 | 102 | 8 | 1 | 3 | 14 | 27 | 26 | 35 | 38 | 38 | 9 | .... |
| 1880 | 95 | 18 | 3 | 16 | 14 | 33 | 37 | 46 | 47 | 43 | 12 | .... |
| 1881 | 102 | 4 | 2 | 5 | 15 | 22 | 26 | 45 | 48 | 31 | 26 | 1 |
| 1882 | 71 | 3 | 4 | 14 | 22 | 36 | 49 | 33 | 41 | 46 | 21 | 4 |
| 1883 | 88 | 15 | 2 | 13 | 32 | 33 | 40 | 53 | 49 | 46 | 27 | 2 |
| 1884 | 103 | 14 | 5 | 11 | 23 | 34 | 24 | 32 | 53 | 37 | 23 | 4 |
| Totals | 1,723 | 150 | 60 | 130 | 313 | 394 | 472 | 550 | 707 | 606 | 301 | 19 |

*Age.*—Of the 5,425 decedents from pneumonia, during the period of twenty years, 1,723, or nearly one-third, were under five years of age. During the period of life of over fifty years of age the number of decedents was 2,164, or about 40 per cent. of the whole number.

The following summary will present the percentages in round numbers:

| | |
|---|---|
| Under five years of age | 32 per cent. |
| Five years and under twenty | 6 per cent. |
| Twenty years and under fifty | 22 per cent. |
| Fifty years and over | 40 per cent. |

## SCARLATINA.

The number of deaths returned as having been caused by scarlatina, in 1884, was 97.

There is no disease that has varied so much from year to year, as a cause of death, in its proportion to whole number of deaths, as scarlatina.. The variations have ranged from 14 to 468 in different years.

*Sex.*—Of the 97 decedents from scarlatina 39 were males, and 58 were females.

*Parentage.*—There were 41 of American parentage, and 56 of foreign; or a proportion of about 140 of foreign parentage to every 100 of American.

During a period of twenty years there were 1,442 decedents from scarlatina of American parentage, and 1,683 decedents of foreign; or a proportion of 117 of foreign to each 100 of American parentage.

The following Table will present the statistics of scarlatina for each of the last thirty years, from 1855 to 1884, inclusive, the whole number of deaths in the State during that period, the number and percentage and sex of the decedents from scarlatina, and the number from scarlatina in each division of the State. It also shows, from 1865 to 1884, inclusive, the parentage of the decedents from scarlatina:

## TABLE LXV.

| YEARS. | Whole Number of Deaths. | SCARLATINA. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | SEX. | | PARENTAGE. | | DIVISIONS OF THE STATE. | | | | | |
| | | Scarlatina. | Per cent. | Males. | Females. | American. | Foreign. | Bristol County. | Kent County. | Newport County. | Providence County Towns. | Providence City. | Washington County. |
| 1855...... | 1,846 | 71 | 3.8 | 41 | 30 | ...... | ...... | 22 | ...... | 1 | 6 | 42 | ...... |
| 1856...... | 2,042 | 208 | 10.2 | 109 | 99 | ...... | ...... | 3 | 1 | 3 | 57 | 144 | ...... |
| 1857...... | 2,325 | 147 | 6.3 | 69 | 78 | ...... | ...... | ...... | 20 | 47 | 47 | 32 | 1 |
| 1858...... | 2,616 | 234 | 8.9 | 118 | 116 | ...... | ...... | 5 | 11 | 75 | 61 | 72 | 10 |
| 1859...... | 2,270 | 71 | 3.1 | 34 | 37 | ...... | ...... | 5 | 2 | 4 | 14 | 45 | 1 |
| 1860...... | 2,686 | 64 | 2.4 | 31 | 33 | ...... | ...... | 4 | 8 | 7 | 17 | 17 | 16 |
| 1861...... | 2,927 | 67 | 1.9 | 24 | 33 | ...... | ...... | 2 | 2 | 7 | 9 | 28 | 9 |
| 1862...... | 2,591 | 47 | 1.8 | 25 | 22 | ...... | ...... | 3 | 4 | 3 | 19 | 14 | 4 |
| 1863...... | 3,207 | 91 | 2.8 | 40 | 51 | ...... | ...... | 1 | ...... | 23 | 24 | 33 | 10 |
| 1864...... | 3,360 | 266 | 8.0 | 120 | 146 | ...... | ...... | 1 | 19 | 19 | 80 | 141 | 6 |
| 1865...... | 3,405 | 255 | 7.5 | 130 | 125 | 134 | 121 | 33 | 17 | 3 | 86 | 108 | 8 |
| 1866...... | 2,970 | 28 | 0.9 | 15 | 13 | 12 | 16 | 5 | ...... | 8 | 12 | 3 | ...... |
| 1867...... | 2,889 | 14 | 0.5 | 6 | 8 | 10 | 4 | 1 | ...... | 1 | 2 | 10 | ...... |
| 1868...... | 2,912 | 93 | 3.2 | 47 | 46 | 32 | 61 | 2 | 3 | 3 | 34 | 50 | 1 |
| 1869...... | 3,382 | 286 | 8.4 | 126 | 160 | 128 | 158 | 17 | 23 | 12 | 72 | 138 | 34 |
| 1870...... | 3,238 | 75 | 2.3 | 37 | 38 | 28 | 47 | 1 | 6 | 3 | 22 | 35 | 8 |
| 1871...... | 3,344 | 66 | 1.9 | 41 | 25 | 31 | 35 | 1 | 3 | 1 | 37 | 21 | 13 |
| 1872...... | 4,247 | 53 | 1.2 | 22 | 31 | 22 | 31 | ...... | 1 | 4 | 27 | 19 | 2 |
| 1873...... | 4,403 | 287 | 6.5 | 124 | 163 | 163 | 124 | 4 | 2 | 42 | 80 | 132 | 27 |
| 1874...... | 4,329 | 462 | 10.9 | 231 | 231 | 176 | 296 | 27 | 17 | 1 | 133 | 268 | 16 |
| 1875...... | 4,317 | 185 | 4.3 | 85 | 100 | 121 | 64 | 8 | 30 | 3 | 35 | 94 | 15 |
| 1876...... | 4,116 | 80 | 1.9 | 34 | 46 | 42 | 38 | 3 | 2 | 7 | 21 | 35 | 12 |
| 1877...... | 4,450 | 62 | 1.4 | 26 | 36 | 29 | 33 | 14 | 4 | 3 | 21 | 12 | 8 |
| 1878...... | 4,441 | 86 | 1.9 | 41 | 45 | 35 | 51 | 3 | 5 | 3 | 14 | 57 | 4 |
| 1879...... | 4,472 | 311 | 7.4 | 164 | 147 | 130 | 181 | 8 | 6 | 4 | 37 | 255 | 6 |
| 1880...... | 4,829 | 468 | 10.0 | 215 | 253 | 216 | 252 | 22 | 30 | 11 | 143 | 243 | 19 |
| 1881...... | 5,016 | 138 | 3.0 | 79 | 59 | 62 | 76 | 11 | 25 | 12 | 41 | 45 | 4 |
| 1882...... | 5,074 | 45 | 0.9 | 24 | 21 | 16 | 29 | ...... | 3 | 16 | 7 | 18 | 1 |
| 1883...... | 5,282 | 34 | 0.6 | 17 | 17 | 14 | 20 | 1 | 1 | 5 | 9 | 16 | 2 |
| 1884...... | 5,141 | 97 | 1.8 | 39 | 58 | 41 | 56 | ...... | ...... | 8 | 28 | 57 | 4 |
| Total..... | 108027 | 4,391 | 4.1 | 2,114 | 2,267 | *1,442 | *1,683 | 202 | 230 | 339 | 1,185 | 2,184 | 231 |

* Twenty years.

## COMPARATIVE RESULTS.

The following Table presents concisely the percentage of *total mortality* from *specified* causes of death, resulting from twenty-four *prominent* causes, as reported in 1884, in the whole State, and in the several divisions of the State, each division dependent upon its own mortality in the computation of percentage :

## TABLE LXV.

| CAUSES OF DEATH. | Bristol County. | Kent County. | Newport County Towns. | Newport City. | Providence County Towns. | Providence City. | Washington County. | Whole State. 1884. |
|---|---|---|---|---|---|---|---|---|
| Accidents (all kinds)......... | 2.50 | 6.80 | 5.20 | 2.55 | 3.70 | 3.39 | 6.30 | 3.82 |
| Apoplexy and Paralysis ..... | 10.50 | 5.07 | 13.42 | 4.38 | 6.17 | 4.72 | 7.78 | 5.78 |
| Brain, Diseases of........... | 2.00 | 3.26 | .74 | 1.45 | 2.63 | 3.70 | 1.06 | 2.97 |
| Bronchitis.... ........ ...... | 3.00 | ........ | 1.48 | 2.19 | 2.41 | 2.77 | ........ | 2.29 |
| Cancer ...................... | 1.00 | 6.52 | 5.21 | 4.10 | 2.34 | 3.13 | 1.41 | 3.13 |
| Cholera Infantum ........... | 5.00 | 4.35 | 1.49 | 8.74 | 6.50 | 6.46 | 6.72 | 6.31 |
| Consumption................ | 10.50 | 13.43 | 7.46 | 12.04 | 14.13 | 15.43 | 16.28 | 14.34 |
| Convulsions................. | 4.50 | 4.35 | 1.49 | 2.19 | 2.16 | 2.92 | 2.47 | 2.70 |
| Croup....................... | 1.00 | 3.99 | .74 | 1.09 | 1.67 | 1.50 | ... .... | 1.55 |
| Debility*................... | 1.00 | 1.08 | 1.49 | 1.46 | 1.25 | .22 | 2.47 | .87 |
| Diarrhœa.................... | 5.00 | .72 | 2.98 | .73 | 2.69 | 1.09 | .35 | 2.20 |
| Diphtheria .................. | 4.00 | .36 | 3.73 | 1.46 | 2.22 | 2.60 | 1.41 | 2.31 |
| Dysentery................... | ........ | 1.08 | .74 | 1.46 | 1.09 | .40 | 1.41 | .78 |
| Fevers...................... | 3.50 | 2.54 | 3.72 | 2.55 | 3.64 | 2.87 | 3.18 | 3.18 |
| Heart, Diseases of........... | 3.00 | 6.17 | 8.75 | 5.11 | 5.07 | 6.21 | 4.60 | 5.63 |
| Hooping Cough............. | 2.50 | ........ | ........ | .73 | .34 | 1.26 | .70 | .83 |
| Hydrocephalus .............. | .50 | .36 | ........ | ........ | .17 | 1.61 | .35 | .81 |
| Kidneys, Diseases of ........ | 4.00 | 2.90 | 2.98 | 2.91 | 1.60 | 2.43 | 2.81 | 2.31 |
| Liver, Diseases of ........... | 2.50 | .72 | ........ | 1.46 | .06 | 1.17 | .70 | .78 |
| Marasmus.*................. | 2.50 | .36 | .76 | 1.82 | .28 | .22 | ........ | .43 |
| Old Age........... ........ | 8.00 | 7.26 | 10.44 | 9.12 | 6.09 | 3.87 | 9.20 | 5.68 |
| Pneumonia................. | 5.00 | 4.72 | 2.23 | 5.09 | 7.17 | 7.72 | 9.20 | 7.06 |
| Scarlatina ................... | ........ | ........ | ........ | 2.92 | 1.60 | 2.56 | 1.41 | 1.88 |
| Stomach, Diseases of........ | .50 | .36 | .74 | .73 | .40 | 1.10 | 2.12 | .31 |

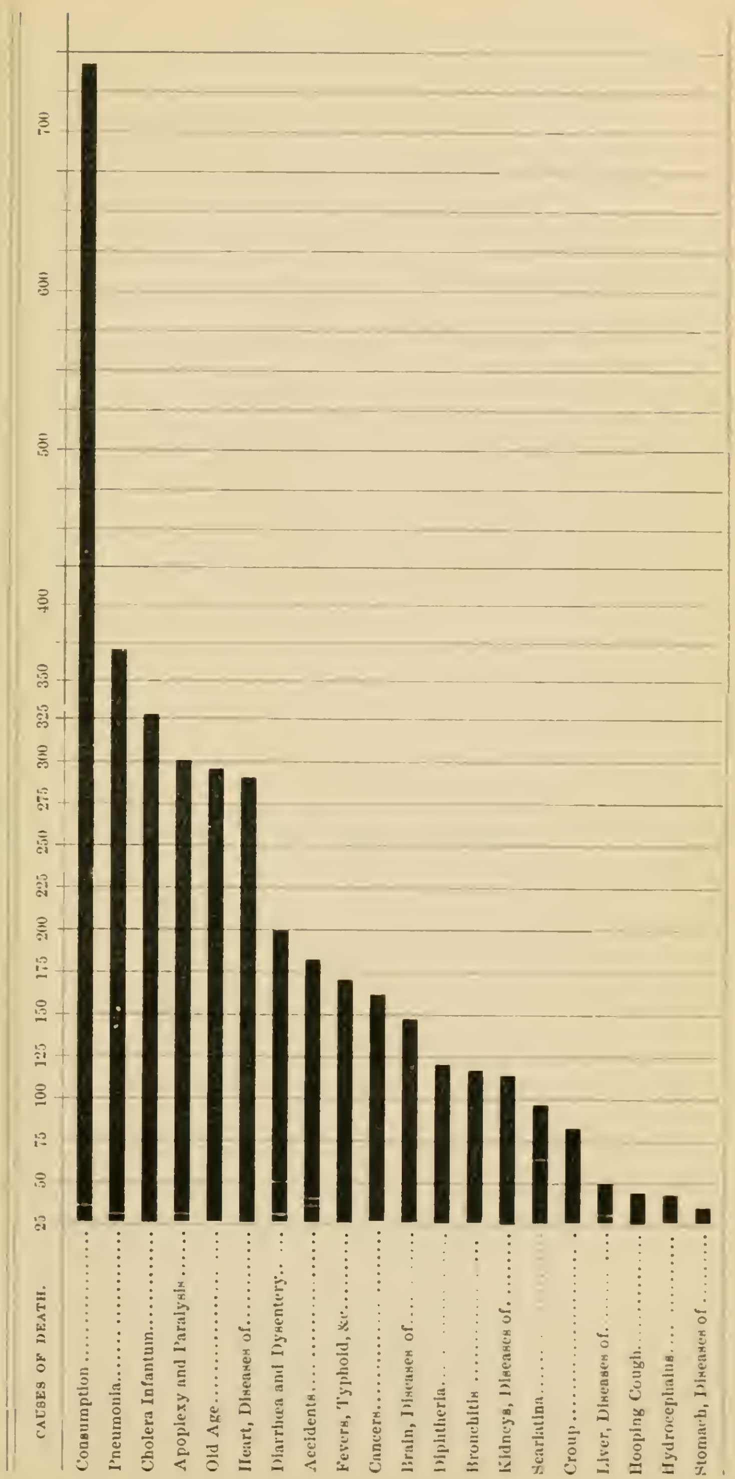
* Not including children under 5 years of age.

The following Table shows the percentages comparatively of several prominent causes of death, in the aggregate of total mortality from specified causes in Rhode Island, during a period of nine years, from 1876 to 1884, inclusive:

## TABLE LXVI.

| CAUSES OF DEATH. | YEARS. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1884. | 1883. | 1882. | 1881. | 1880. | 1879. | 1878. | 1877. | 1876. |
| Accidents (all kinds) | 3 80 | 2.84 | 3.41 | 3.04 | 3.51 | 2.43 | 2.89 | 3.10 | 2.94 |
| Apoplexy and Paralysis | 5.78 | 5.39 | 5.52 | 5.23 | 4.67 | 5.21 | 4.45 | 4.25 | 4.22 |
| Brain, Diseases of | 2.97 | 3.50 | 3.60 | 3.84 | 3.44 | 3.73 | 3.28 | 3.68 | 3.75 |
| Bronchitis | 2.29 | 2.04 | 2.08 | 1.80 | 1.98 | 1.47 | 1.89 | 1.62 | 1.46 |
| Cancer | 3.03 | 3.30 | 2.75 | 3.11 | 2.72 | 2.96 | 2.82 | 3.17 | 2.72 |
| Cholera Infantum | 6.31 | 4.73 | 6.77 | 5.15 | 5.43 | 3.81 | 3.97 | 6.08 | 6.41 |
| Consumption | 14.34 | 15.01 | 15.33 | 15.12 | 14.02 | 15.09 | 15.98 | 15.52 | 16.78 |
| Convulsions and Fits | 2.70 | 2.47 | 2.29 | 2.18 | 2.88 | 2.47 | 2.65 | 1.95 | 2.28 |
| Croup. | 1.55 | 1.40 | 1.60 | 2.16 | 1.45 | 2.28 | 2.20 | 2.23 | 2.61 |
| Debility | 2.87 | 1.14 | 2.69 | 2.61 | 3.09 | 2.35 | 1.91 | 2.65 | 2.80 |
| Diarrhœa | 2.20 | 2.55 | 1.87 | 1.65 | 1.52 | 1.26 | 1.25 | 2.11 | 1.87 |
| Diphtheria | 2.31 | 1.88 | 2.10 | 4.63 | 8.40 | 6.14 | 10.28 | 11.56 | 4.07 |
| Dysentery | .78 | 1.06 | 1.42 | .90 | .61 | 1.04 | .95 | 1.22 | 1.28 |
| Fevers | 3.24 | 5.12 | 4.60 | 3.05 | 3.37 | 2.70 | 3.94 | 3.55 | 3.69 |
| Heart, Diseases of | 5.60 | 6.35 | 5.31 | 5.68 | 5.03 | 4.78 | 3.92 | 4.28 | 4.25 |
| Hooping Cough | .83 | .17 | 1.48 | 1.46 | .44 | 1.02 | 1.28 | .75 | 1.23 |
| Hydrocephalus | .81 | .87 | 1.02 | 1.20 | 1.01 | 1.36 | 1.65 | 1.29 | 1.74 |
| Kidneys, Diseases of | 2.52 | 2.43 | 1.79 | 1.69 | 2.02 | 1.88 | 1.89 | 1.57 | 1.28 |
| Liver, Diseases of | .88 | .83 | 1,21 | .82 | 1.20 | 1 17 | 1.06 | 1.06 | 1.13 |
| Marasmus | 1.62 | 2.02 | 1.62 | 1.11 | 1.27 | 1.16 | 1.30 | .99 | 1.13 |
| Old Age | 5.68 | 5.22 | 5.89 | 5.29 | 5.95 | 5.22 | 5.25 | 5.00 | 6.18 |
| Pneumonia | 7.14 | 7.84 | 7.16 | 7.01 | 7.90 | 7.37 | 7.49 | 5.31 | 8.69 |
| Scarlatina | 1.88 | .64 | .94 | 2.96 | 9.99 | 7.37 | 2.03 | 1.46 | 2.05 |

*Diagram III. Exhibiting the comparative mortality by absolute number of decedents, from twenty principal causes of death in Rhode Island, in 1884.*



# NOMENCLATURE OF DISEASES,

OR

# CAUSES OF DEATH.

# NAMES OF CAUSES OF DEATH.

It should be stated that the nomenclature of diseases in the nosological arrangement on the following pages is not intended to include the names of the whole list of morbid phenomena affecting the human organism, but the names of such only as are directly the **cause of death**, or such as ordinarily predispose to or set in motion the morbid processes that end in death.

In the construction of the classification now adopted, use has been made of the results and conclusions of a committee of the Royal College of Physicians, of England (who have been engaged for several years in a revision of the British nomenclature of diseases), as far as such conclusions have been ascertained from brief reports in different medical journals, and from such other sources as were accessible, and from examination of the classifications in use in different countries in Europe and America.

It should be said that all these classifications have been and are **essentially alike**, that all have been based designedly on observed facts and most advanced conclusions in relation to pathological processes and morbid conditions, inductive, causative, progressive and ultimate.

The statistical nosology will consist of two lists of causes of death,

## A TABULAR LIST AND SUPPLEMENTAL LIST.

The TABULAR LIST comprises the chief or primary causes of death which will be used in Table X on Classification and Percentage in the preparation of the Registrar's Annual reports, and will, therefore, include all those named in the SUPPLEMENTAL LIST, when the final arrangement is completed.

The SUPPLEMENTAL LIST is subordinate to the TABULAR LIST, and contains synonyms, or names of related diseases, which may be actually, or are supposed to be, causes of death, and which are in addition to those in the TABULAR LIST, and which are often found in PHYSICIAN'S **certificates of death**, as reported to the State Registrar. These will have a place, in alphabetical order, in Tables VIII and IX in the Reports, and will be variously grouped under different heads in Table X, as the figure which precedes each cause in the SUPPLEMENTAL LIST will correspond with the figure of the head in the TABULAR LIST under which that cause is placed.

# NOMENCLATURE OF CAUSES OF DEATH.

## CLASSES.

| | | | |
|---|---|---|---|
| I. | General Diseases.—A. | SPECIFIC AND FEBRILE. | (*Zymotic.*) |
| II. | General Diseases.—B. | CACHECTIC. | (*Constitutional.*) |
| III. | Special Diseases.—A. | FUNCTIONAL OR ORGANIC. | (*Local.*) |
| IV. | Special Diseases.—B. | DEVELOPMENTAL. | (*Developmental.*) |
| V. | Violent Deaths. — | FROM INJURIES. | (*Violence.*) |

## SUB GROUPS OR ORDERS.

### CLASS I.—**Zymotic Diseases.**

Order one, Miasmatic. Order two, Enthetic. Order three, Dietic. Order four, Parasitic.

### CLASS II.—**Constitutional Diseases.**

Order one, Diathetic. Order two, Tubercular.

### CLASS III.—**Local Diseases.**

Order one, Diseases of the Nervous System. Order two, Organs of Circulation. Order three, Organs of Respiration. Order four, Organs of Digestion. Order five, Urinary Organs. Order six, Reproductive Organs. Order seven, Osseous and Locomotory Organs. Order eight, Integumentary System.

### CLASS IV.—**Developmental Diseases.**

Order one, Of Children. Order two, Of Women. Order three, Of Old Age. Order four, Of Nutrition.

### CLASS V.—**Violent Deaths.**

Order one, Accidents and Negligence. Order two, Homicide. Order three, Suicide.

# STATISTICAL NOSOLOGY.

## CLASS I.—Zymotic Diseases.

### TABULAR LIST.

*For Table X of the Registration Report.*

### ORDER One.—Miasmatic.

I. One.—1. Carbuncle
2. Cholera, Asiatic
3. Cholera, Sporadic
4. Cholera Infantum
5. Cholera Morbus
6. Croup (Pseudo Membranous)
7. Diphtheria
8. Diarrhœa
9. Dysentery
10. Erysipelas
11. Fever, Bilious
12. Fever, Cerebro Spinal
13. Fever, Intermittent
14. Fever, Malarial
15. Fever, Typhoid
16. Fever, Typho-Malarial
17. Fever, Unspecified
18. Fever, Yellow
19. Influenza (Epidemic)
20. Measles
21. Mumps
22. Metria (Puerperal Fever)
23. Pertussis
24. Tonsillitis
25. Scarlatina
26. Small Pox
27. Varicella

### ORDER Two.—Enthetic.

I. Two.—1. Glanders
2. Gonorrhea
3. Hydrophobia
4. Malignant Pustule
5. Septicæmia
6. Syphilis

### ORDER Three.—Dietic.

I. Three.—1. Alcoholism
2. Delirium Tremens
3. Inanition
4. Purpura and Scurvy

### ORDER Four.—Parasitic.

I. Four.—1. Apthæ
2. Worms
3. Other Parasites

### SUPPLEMENTAL LIST.

*Synonyms or Related Diseases.*

### ORDER One.—Miasmatic.

I. One.—1. Anthrax.
Gangrenous Boil.
4. Entero Colitis, } Infantile.
Gastro Enteritis, } Infantile.
10. Hospital Gangrene.
Pyemia.
Phagadena.
Phlegmon.
15. Infantile Fever.
Typhus Fever.
20. Rotheln.
21. Parotitis.
22. Child-bed Fever.
23. Hooping Cough.
24. Quinsy.
25. Scarlet Fever.
Angina Maligna.
26. Varioloid.
27. Chicken Pox.
Miliaria.

### ORDER Two.—Enthetic.

I. Two.—2. Stricture of the Urethra.
Gonorrheal Opthalmia.
5. Necnsia.

### ORDER Three.—Dietic.

I. Three.—1. Intemperance.
3. Privation.
Starvation.
Neglect.

### ORDER Four.—Parasitic.

I. Four.—1. Thrush.
2. Tape Worm.
Trichianasis.
3. Scabies.
Hydatids.
Porrigo, Favus. etc.

# CAUSES OF DEATH.

## CLASS II.—Constitutional Diseases.

### TABULAR LIST.

### ORDER One.—Diathetic.

II. One.—1. Gout
2. Dropsy
3. Anæmia
4. Cancer, Various
5. Cancer of Breast
6. Cancer of Stomach
7. Cancer of Uterus
8. Noma (Canker)
9. Mortification
10. Rheumatism

### ORDER Two.—Tubercular.

II. Two.—1. Scrofula
2. Tabes Mesenterica
3. Phthisis (Pulmonary)
4. Hydrocephalus
5. Tubercular Meningitis

### SUPPLEMENTAL LIST.

II. One—2. Anasarca.
3. Leucocythæmia.
Chlorosis.
4. Soft Cancer.
Epithelioma.
Melanosis.
Lupus.
Other kinds of Cancer.
9. Bed-sore.
Dry Gangrene.
10. Rheumatic Carditis.
Rheumatic Synovitis.
Rheumatic Meningitis.

II. Two.—1. Psoas (Lumbar) Abscess.
White Swelling.
Cretinism (Goitre).
Adenitis.
Morbus Coxarius.
Pott's Disease.
2. Tubercular Peritonitis.
3. Hæmoptysis.

## CLASS III.—Local Diseases.

### ORDER One.—Nervous System.

III. One.—1. Cephalitis
2. Cerebritis
3. Apoplexy
4. Paralysis
5. Insanity
6. Chorea
7. Epilepsy
8. Tetanus
9. Convulsions
10. *Brain Diseases**

### ORDER Two.—Circulatory System.

III. Two.—1. Pericarditis
2. Aneurism
3. *Heart Diseases**

III. One.—1. Phrenitis.
Meningitis.
Cerebro Spinal Meningitis. (Sporadic.)
5. Monomania.
Fright.
Grief.
Melancholia.
Dementia.
Rage.
6. Hysteria.
8. Laryngismus.
Lockjaw.
Trismus Nascentium.
10. Neuralgia, Cerebral.
Neurasthenia.
Disease of Spinal Cord.
Necrencephalus (Ramollissement).
Thrombosis, Cerebral.

III. Two.—1. Carditis.
Endocarditis.
3. Hypertrophia.
Atrophia.
Angina Pectoris.
Syncope.
Arteritis.
Ossification of Arteries.
Phlebitis.
Hydropericardium.
Embolus.
Thrombosis.

---

* Not otherwise placed.

# STATISTICAL NOSOLOGY.

## CLASS III.—Local Diseases.—Continued.

### TABULAR LIST.

### ORDER Three.—Respiratory System.

III. Three.—1. Epistaxis
2. Laryngitis
3. Bronchitis, Acute
4. Bronchitis, Chronic
5. Pleurisy
6. Pneumonia
7. Asthma
8. *Lung Diseases**

### ORDER Four.—Digestive System.

III. Four.—1. Gastritis
2. Enteritis
3. Peritonitis
4. Ascites
5. Ulceration of Intestines
6. Hernia
7. Ileus
8. Intussusception
9. Stricture of Intestines
10. Fistula
11. *Stomach Diseases**
12. *Pancreas Diseases**
13. Hepatitis
14. Jaundice
15. *Liver Diseases**
16. *Spleen Diseases**
17. *Bowel Diseases**

### ORDER Five.—Urinary System.

III. Five—1. Nephritis
2. Ischuria
3. Nephria (Bright's Disease)
4. Diabetes
5. Calculus (Gravel, &c.)
6. Cystitis
7. Prostate, Disease of
8. *Kidney Diseases**
9. Bladder, Diseases of*
10. Testicles, Disease of

### ORDER Six.—Generative System.

FEMALE.

III. Six.—1. Ovarian Dropsy
1. *Diseases of Uterus**

### SUPPLEMENTAL LIST.

III. Three.—2. Œdema Glottidis.
5. Empyema.
Diaphragmitis.
Pneumothorax.
Hydrothorax.
6. Pulmonary Apoplexy.
Hæmoptysis.†
Congestion of Lungs.
7. Grinders' Asthma.
Miners' Asthma.
Emphysema.

III. Four.—1. Glossitis.
Stomatitis.
Pharyngitis.
Œsophagitis.
2. Gastro Enteritis,
Entero Colitis, } Not Infantile.
5. Perforation of—
6. Congenital.
Femoral.
Inguinal.
Scrotal.
Umbilical.
Ventral.
7. Constipation.
Obstipation.
Perityphlitis.
Typhlitis.
9. Strict Œsophagus.
11. Dyspepsia.
Pyrosis.
Gastralgia.
Hæmatemesis.
Melæna.
14. Gall-stones.
15. Cirrhosis.

III. Five.—3. Albuminuria.
6. Cystirrhœa.
8. Diuresis.
Hæmaturia.
Uræmia.
9. Urethritis.
10. Orchitis.

III. Six.—1. Ovarian Tumor.
2. Hysteritis, Metritis.
Uterine Ulcer.
Polypus Tumor.
Ovaritis.
Pelvic Cellulitis.

---

* Not otherwise placed.

† See Class II, Order Two—3, Sup. List.

# CAUSES OF DEATH.

## CLASS III.—Local Diseases.—Continued.

| TABULAR LIST. | SUPPLEMENTAL LIST. |
|---|---|
| ORDER Seven.—**Osseous and Locomotory System.** | |
| III. Seven.—1. Bones, Diseases of | III. Seven.—1. Ostitis.<br>Periostitis.<br>Fragilitas Ossium.<br>Mollities Ossium.<br>Rickets.<br>Caries, Necrosis.<br>Exostosis. |
| 2. _Joint Diseases_* | 2. Synovitis.<br>Hip Disease.† |
| 3. Vertebræ, Diseases of | 3. Spine Disease<br>Spine, Caries and Necrosis. |
| ORDER Eight.—**Integumentary System.** | |
| III. Eight.—1. Phlegmon ‡ | III. Eight.—1. Abscess, part not stated.<br>Boil.<br>Whitlow. |
| 2. Ulcer | |
| 3. _Skin Diseases_* | 3. Roseola.<br>Urticaria.<br>Eczema.<br>Herpes.<br>Pemphigus.<br>Ecthyma.<br>Impetigo.<br>Psoriasis, &c.<br>Dermatitis (from burns, &c.). |
| ORDER Nine.—**Organs of Special Sense.** | |
| EYE AND EAR. | |
| III. Nine.—1. Malignus Oculi | |
| 2. Opthalmitis | |
| 3. Ossis Petrosis | |
| 4. Otitis | |

## CLASS IV.—Developmental Diseases.

| | |
|---|---|
| ORDER One.—**Developmental Diseases of Children.** | |
| IV. One.—1. Still-born | |
| 2. Debility, Infantile | IV. One.—2. Asthenia. |
| 3. Debility. Premature Birth | |
| 4. Cyanosis | 4. Atelectasis Pulmonum. |
| 5. Spina Bifida | |
| 6. Other Malformations | 6. Anus Imperforatus.<br>Cleft Palate.<br>Idiocy. |
| 7. Teething | |
| 8. Innutrition | 8. Malnutrition. |

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* Not otherwise placed. † See Class II, Order Two—1, Sup. ‡ See Class I, Order One—10, Sup.

# STATISTICAL NOSOLOGY.

## CLASS IV.—Developmental Diseases.—Continued.

| TABULAR LIST. | SUPPLEMENTAL LIST. |
|---|---|
| **ORDER Two.—Developmental Diseases of Women.** | |
| IV. Two.—1. Paramenia | IV. Two.—1. Amenorrhœa.<br>Chlorosis.†<br>Climateria.<br>Menorrhagia. |
| 2. Childbirth* | 2. Miscarriage.<br>Abortion.<br>Puerperal Mania.<br>Puerperal Convulsions.<br>Phlegmasia Dolens.<br>Cæsarian Operation.<br>Extra-uterine Fœtation.<br>Flooding.<br>Retention of Placenta.<br>Presentation of Placenta.<br>Deformed Pelvis.<br>Mammary Abscess. |
| **ORDER Three.—Developmental Diseases of Old People.** | |
| IV. Three.—1. Old Age | |
| **ORDER Four.—Diseases of Nutrition. Adolescent and Adult.** | |
| IV. Four.—1. Atrophy | IV. Four.—1. Marasmus.<br>Malnutrition. |
| 2. Debility | 2. Asthenia.<br>Exhaustion. |

## CLASS V.—Violent Deaths.

| | |
|---|---|
| **ORDER One.—Accident or Negligence** | |
| V. One.—1. Fractures and Contusions | V. One.—1. Railroad and other Accidents. |
| 2. Wounds, Unspecified | |
| 3. Burns and Scalds | |
| 4. Poison | |
| 5. Drowning | 5. Lost at Sea. |
| 6. Suffocation | 6. Asphyxia.<br>Strangulation. |
| 7. Various | 7. Exposure.<br>Cold Water.<br>Frozen.<br>Heat.<br>Lightning.<br>Surgical Operation. |
| **ORDER Two.—Homicide.** | V. Two.—1. Infanticide.<br>Parricide.<br>Matricide.<br>Fratricide.<br>Filicide, &c. |
| **ORDER Three.—Suicide.** | |
| V. Three.—1. Wounds, Unspecified<br>Wound, Pistol or Gunshot<br>Wounds, Knife | |
| 2. Poison | |
| 3. Drowning | |
| 4. Hanging | |
| 5. Otherwise | |

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* See Class I, Order One—22, Tab. List.

† See Class II, Order One—3, Sup.

**Suggestions concerning physicians' certificates of death.** It should be the endeavor to specify the causes of death as definitely and correctly as possible. It is not unusual to find a return of death with the physician's certificate, naming the cause of death, "Paralysis," "Paraplegia," "Fits," "Convulsions," "Dropsy," &c., which are merely secondary or consecutive causes, simply symptoms only, or results of some organic lesion or pathological derangement. Sometimes **the alleged cause** is really the *final cause,* as in a case of termination of life by paralysis, but the cause given as paralysis **is not the determining cause.** Apoplexy, or some lesion of the nervous centres, must be the original and determining cause of paralysis, paraplegia, hemiplegia, &c., and the determining cause should be stated as the primary in the return or certificate.

**Convulsions are the symptoms or results of some antecedent or concurrent disease.** They follow meningitis and other structural lesions of the nervous centres: they also occur from reflex derangement or disturbance of the nervous centres, as in children, from intestinal irritation, or from inflammation, as in gastritis, enteritis, nephritis, &c. In such cases they may be contributory to death, and perhaps, in rare instances, a final cause, by inducing or taking the form of tonic or tetanic spasm. But as contributory, or as a final cause, they are simply concomitant, and are not unfrequently manifestations of the desperate efforts of expiring vitality to regain original and normal control. They should find place as secondary causes only in certificates of death.

**"Fits" is too unmeaning a term to be used in any case.** The word in a medical sense literally means an attack, an occurrence, or succession of attacks of some physical or mental disturbance, as "fits of sickness," "fits of melancholy, &c.," and is not properly used as synonymous with convulsions from any cause. It would be just as sensible to attribute a death to an "occurrence" or an "attack" as a cause, as to "fits," without other qualifications.

**"Dropsy" and "Ascites" have been allowed to stand** as determining causes of death because of extended use, and because of the obscurity with which their causes in rare instances are involved. We can scarcely conceive of a dropsical accumulation without antecedent organic or functional disorder, derangement of the absorbent or secretory system, or depravation of the blood. They are left in the tabular list with not a little reluctance. Paralysis is also left in the tabular list for a like reason, and with the same doubt of propriety.

**It may be suggested** that it is sometimes difficult, and occasionally impossible, to ascertain positively the chief or leading cause of death. The physician last in attendance may find several functional or structural diseases, the morbid conditions multiple and complex, and not only the initial derangement, but the succession of morbid processes, proximate, consecutive and ultimate, inextricably entangled and lost to discovery.

The careful diagnostician will, however, even then be able to *conceive the probable leading cause*, but, whether or not, he will be able at least **to ascertain the most prominent and controlling lesion or functional derangement then existing,** and which may reasonably be accepted as the primary cause of death.

The preceding remark applies very properly to cases of adventitious diseases which prove fatal, when occurring in individuals already suffering from some chronic disease of slower progress, as when fatal dysentery attacks a consumptive person, or one having chronic nephritis dies from pneumonia. **The acute disease** occurring independently of the chronic disease **is the chief cause of death,** although the fatal event may have been made more sure by the existence of the antecedent disease, and although the antecedent disease would have ultimately caused death.

In attributing death to scrofula, tuberculosis, tumor, cancer and other generic terms, as causes, the **organic structure or locality where the disease is developed** should always be given, otherwise such terms are very indefinite, and discredit the acquirements of the certifying physician.

**The objects desired in presenting the preceding nomenclature of causes of death,** and the suggestions following, are to subserve the purpose of greater uniformity in the use of nosological terms, and to promote the accomplishment of entire definiteness, accuracy, and completeness in the physicians' certificates of causes of death.

The returns of deaths in Rhode Island have been from year to year acquiring greater completeness. The improvement, however, has been **greater in relation to every other fact** connected with the events of death **than with the fact of cause.** This defect in large measure is the result of disregard of the statute law on the part of the individuals having the decedents in charge, before and after death, both medical and mortuary.

The State of Rhode Island has a leading reputation for the completeness of its vital statistics. It is not excelled, if equalled, by any State in the Union. With the exception of two or three, there are no States that have approximate completeness of numbers of decedents, and fullness of statements of fact connected therewith. It is hoped that the physicians of Rhode Island will feel a professional and patriotic interest in the further elevation of the reputation of the State as a collector of accurate and complete vital statistics.

# THE LAWS OF RHODE ISLAND

IN RELATION TO

# VITAL STATISTICS, MARRIAGE AND DIVORCE.

## PUBLIC STATUTES, CHAPTER 85.

### OF THE REGISTRATION OF BIRTHS, DEATHS AND MARRIAGES.

SECTION 1. The town clerks of the several towns, or any person whom the board of aldermen of any city, or the town council of any town may appoint for that purpose, shall obtain, chronologically record and index, as required by the forms prescribed by section three of this chapter, all information concerning births, marriages and deaths occurring among the inhabitants of their respective towns; and on or before the first Monday in March, annually, shall make duly certified returns thereof to the secretary of the state board of health for the year ending on the thirty-first day of December next preceding, accompanying the same with a list of the persons required by law to make returns to them, who have neglected to do so, and with such remarks relating to the object of this chapter as they may deem important to communicate.

SEC. 2. The secretary of the state board of health shall receive the returns made in pursuance of the preceding section, and annually make a general abstract and report thereof, in form as prescribed by section three of this chapter, and publish not exceeding one thousand copies thereof, and for preparing, tabulating and publishing said annual report the sum of five hundred dollars shall be paid to the state registrar. Said returns, after such report is prepared, shall be deposited in the office of the secretary of state, who shall cause the same to be arranged, full alphabetical indices of all the names to be made, and the whole to be bound in volumes of convenient size and carefully preserved in his office.

SEC. 3. The blank forms required to carry out the provisions of this chapter shall, on application, be furnished by the secretary of the state board of health, to clergymen, physicians, undertakers, town clerks, clerks of meetings of the

Society of Friends and other persons requiring them, substantially as follows: The record of a birth shall state the date and place of birth, name and sex of the child, whether born alive or still-born, the name and surname, color, occupation, residence and birthplace of the parents, and the time of recording, so far as the same can be ascertained. The record of a marriage shall state the date of the marriage, place, name, residence and official station of the person by whom married, names and surnames of the parties, age, color, occupation and residence of each, condition, that is whether single, widowed or divorced, what marriage, that is whether first, second, third or other marriage, the occupation, birthplace and name of their parents, and the time of recording, so far as the same can be ascertained. The record of deaths shall state the date of death, name and surname of the deceased, the sex, color and condition, whether single or married, age, occupation, place of death, place of birth, names and birthplace of parents, disease or cause of death, and the time of recording, so far as can be ascertained.

Sec. 4. Every meeting of the Society of Friends, clergyman, and all others authorized to join persons in marriage, shall make a faithful record of every such rite performed by them, in manner and form aforesaid, and return the same for the last preceding month, on or before the second Monday of every month, to the town clerk of the town in which such rite shall have been performed; and no marriage shall be solemnized until the parties shall have signed and delivered to the person about to solemnize it, or to the clerk of a meeting of the Society of Friends, a certificate containing the information required for the record of a marriage, as prescribed by this chapter.

Sec. 5. The town clerk of every town shall annually, in the month of January, collect the information required by this chapter, in relation to all children born in the town during the year ending on the thirty-first day of December next preceding.

Sec. 6. Whenever any person shall die, or any still-born child shall be brought forth in this state, the physician attending at such bringing forth or last sickness, if any physician so attended, shall, within forty-eight hours after such death or bringing forth, leave with the family, if any, or person having the care of the deceased, or the person bringing forth such still-born child. or give to the undertaker or person who conducts the funeral a certificate stating, in case of a death, the name of the deceased, the date of the death, and the disease or cause of the death, and in case of the bringing forth of a still-born child, the date and the cause of such child being brought forth still-born.

Sec. 7. Every town council may appoint a sufficient number of persons to act as undertakers, removable at the pleasure of such council.

Sec. 8. No undertaker or other person shall conduct a funeral, or bury or deposit in a tomb, or remove from this state, or otherwise dispose of the remains of any deceased person or still-born child unless he shall first obtain the physician's certificate required by section six of this chapter, if a physician was in attendance upon such person who has deceased, or the person bringing forth such still-born child, and shall return the same, together with his own certificate of the information required by section three of this chapter, to the town clerk of the town where such death or bringing forth took place.

Sec. 9. Any town may make ordinances more effectually to attain the objects herein contemplated.

Sec. 10. The town clerks, or persons appointed as aforesaid, shall receive for each record of a death made and returned as required by law, and for each record of a marriage made and returned as required by law, twenty cents, to be paid to them out of their respective town treasuries: *Provided*, that the yearly compensation to be paid out of the town treasury as aforesaid, to any one town clerk or person appointed as aforesaid, who shall perform the duties prescribed by this chapter, shall not be less than five dollars. Undertakers and others making returns of deaths as required by section eight of this chapter, shall receive for each full report of a death made to the town clerk, five cents in the cities of Providence and Newport, and ten cents in the other towns of the state.

Sec. 11. Every clergyman, physician, undertaker, town clerk, clerk of any meeting of the Society of Friends, or other person who shall wilfully neglect or refuse to perform any of the duties imposed on or required of him by this chapter, shall be fined not exceeding twenty dollars for each offence, one-half thereof to the use of the town in which the offence shall occur, and one-half thereof to the use of the person who shall complain of the same.

Sec. 12. Every clergyman, physician, coroner, undertaker, or clerk of any meeting of the Society of Friends, shall cause his name and residence to be recorded in the town clerk's office of the town where he resides.

Sec. 13. No letters of administration or letters testamentary shall be granted by any court of probate, upon the estate of any person, until the death of such person, or the facts from which the same is presumed, shall be duly certified, as near as may be, to the town clerk, in order that the same may be duly registered according to the provisions of this chapter.

Sec. 14. The town clerks of the several towns, the city clerk of the city of Newport, and the city registrar of the city of Providence, shall have the custody of all records of births, deaths and marriages of their respective towns, whether made under the statutes now in force or any former statute, and a certificate signed by them, certifying that any written or printed statement of any marriage, birth or death is a true copy of the record in their custody, shall be admitted as evidence of such marriage, birth or death.

Sec. 15. Births, marriages and deaths of non-residents shall be distinguished from those of residents, in the returns, by being arranged separately.

Sec. 16. The secretary of the state board of health may, from time to time, vary the forms of returns, and require such additional information as he may consider necessary to accomplish the object of this chapter.

Sec. 17. The town clerks or other officers appointed under this chapter to collect, record and return the births in the several towns, shall receive fees therefor as follows: For making record and return of these facts as required by law, twenty cents each for the first fifty entries in each calendar year, and ten cents each for each subsequent entry and return; to be paid by the town in which the birth is recorded.

Sec. 18. The town clerks of the several towns, or other persons appointed under this chapter to collect the births in the several towns, shall annually in the month of January, collect the facts concerning the births within their respective towns, required by this chapter; and shall, so far as practicable, at the same time collect the names of all persons liable to be enrolled in the militia, as required by title thirty-four; and the census of all persons between the ages of five and fifteen years inclusive, as provided by chapter fifty; and shall receive therefor such compensation as the town council or the board of aldermen of their respective towns or cities shall determine; *Provided*, that the city of Providence shall be exempt from so much of the provisions of this section as relates to the collection of the statistics of births.

Sec. 19. Blanks for the foregoing purposes shall be furnished, on application therefor, on or before the first day of December in the year preceding, by the state board of health for the collection of births, by the adjutant-general for the taking of the enrolled militia, and by the commissioner of public schools for the census aforesaid.

Sec. 20. The person or persons who shall discharge the duties required by section eighteen of this chapter, if other than the town clerk, shall make full return thereof to the town clerk of his or their town, on or before the tenth day of February next following.

Sec. 21. The returns required to be made by clerks of the supreme court, in relation to divorces, to the secretary of the state board of health, or a prepared abstract thereof, shall be published in the annual report on the births, marriages and deaths in the state.

## SYNOPSIS OF THE LAW OF MARRIAGE.

### CHAPTER 163, PUBLIC STATUTES.

Sections 1, 2 and 3 show what kindred persons cannot marry, and declare marriages within prohibited degrees null and void.

Section 4 makes an exception in favor of Jews, within the degrees of affinity or consanguinity allowed by their religion.

Section 5 declares the marriage of persons having a husband or wife living, and of idiots and of lunatics, absolutely void.

Sec. 6. "Any ordained minister or elder of any religious denomination, who shall be *domiciled* in this state, and either justice of the supreme court, may join persons in marriage in any town in the state." (It will be seen that clergymen from other states *cannot* LAWFULLY *solemnize marriages* in Rhode Island.)

Section 7 defines what shall be understood by the term "religious denomination," within the meaning of the preceding section.

Sec. 8. Wardens in the town of New Shoreham may join persons in marriage in said town.

Section 9 provides that no minister, elder, magistrate or warden shall join persons in marriage, unless such persons, ***if residents of this state,*** shall first present (to the clergyman or other person officiating) a certificate properly executed and signed by the town or city clerk or city registrar of the town or city in which ***EACH of such persons shall RESPECTIVELY reside,*** and ***if not residents of this state,*** then from the town or city clerk or registrar of *the town or city in which the marriage shall be solemnized*, to the effect that the said town or city clerk or registrar has ***duly recorded the intention*** of marriage between the parties named in the certificate, the said certificate also setting forth the names and surnames of the parties, the age, color, occupation, birthplace and residence of each, whether either or both have been before married, and, if before married, whether the marriage intended is the first, second, third or other marriage, and also whether the condition of either or both persons previously married is that of a divorced person, and the names, occupation and birthplace of each of their parents; and no town or city clerk or city registrar shall issue such certificate to any minor or person under guardianship, unless the consent in writing of the parent or guardian shall have been first obtained thereto, provided, however, such certificate may be issued to a female over eighteen years of age, who has no parent or guardian living in the United States. (The legal minority of both sexes terminates at the age of twenty-one.)

Section 10 provides that every Society of Friends, and *every person* authorized to join persons in marriage *shall certify* upon the certificate required in section nine of this chapter *the time when* and *the place where* the marriage shall have been solemnized by him, and SHALL *on or before the second Monday of every month,* return the certificate of every marriage solemnized by him during the last preceding month, to the *clerk or registrar* of the TOWN OR CITY *in which such rite shall have been performed.*

Section 11 forbids the solemnization of the marriage ceremony, by any person, when lawful objection is made thereto in writing, until such lawful objection be removed.

Sections 12 and 13 provide that any person who shall join persons in marriage without first receiving the certificate required in section nine of this chapter, or otherwise contrary to or in violation of chapter 163 of the Public Statutes, shall be imprisoned not exceeding six months, or fined not exceeding one thousand dollars.

Section 14 provides that ALL PERSONS married without duly proceeding as required by chapter 163, shall be fined not exceeding fifty dollars.

Sec. 15. The solemnization of marriage shall be in the presence of two witnesses at least, besides the minister, elder or magistrate officiating.

Section 16 relates to marriages among Quakers or Friends, and among Jews, making them valid if in accordance with the forms, rites and ceremonies of the same respectively.

Section 17 provides that at least one of the parties to any marriage solemnized according to the manner and form of the Society of Friends, or rites and ceremonies of the Jewish religion shall, before the celebration thereof, sign and deliver to the town or city clerk or city registrar of the town or city in which such marriage is solemnized, the certificate required in section nine.

# CHAPTER 167.

## OF DIVORCE.

Section 1. Divorces from the bond of marriage shall be decreed in case of any marriage originally void or voidable by law, and in case either party is for crime deemed to be or treated as if civilly dead, or, from absence or other circumstances, may be presumed to be naturally dead.

Sec. 2. Divorces shall be decreed for impotency, adultery, extreme cruelty, wilful desertion for five years of either of the parties, or for such desertion for a shorter period of time in the discretion of the court, for continued drunkenness, for neglect or refusal on the part of the husband, being of sufficient ability, to provide necessaries for the subsistence of his wife; and for any other gross misbehavior and wickedness in either of the parties, repugnant to and in violation of the marriage covenant.

Sec. 3. Whenever it shall appear that the absence, adultery, cruelty, desertion or other cause of complaint, as aforesaid, was committed or occasioned by the collusion of the parties, and done and contrived with an intention to procure a divorce, in such case no divorce shall be decreed.

Sec. 4. Whenever a divorce shall be had for the causes of affinity, consanguinity, impotency, idiocy, lunacy, or crime of either of the parties, the wife shall have restored to her all her lands, tenements and hereditaments; and a judgment may be passed for a restoration to her of all or such part of the personal estate specifically, or the value thereof, which has come to the husband's hands by virtue of the marriage, as the court from the circumstances of the case shall deem equitable.

Sec. 5. Whenever the divorce shall be occasioned by adultery, or other of the causes aforesaid, done or committed on the part of the wife, the husband shall hold the personal estate not secured to her by law, forever, and her real estate not secured to her by law, during his natural life, in case they have had issue born alive of her body during the marriage, otherwise during her natural life only, if he shall survive her.

Sec. 6. The court may, in such case, allow the wife for her subsistence so much of her real and personal estate as they shall deem necessary or proper.

Sec. 7. Whenever a divorce is granted for adultery, or crime on the part of the husband, the wife shall be entitled to dower in the same manner as if he were dead, unless the court shall decree alimony, chargeable upon the estate of the husband, instead of such dower.

Sec. 8. Whenever a divorce shall be had for adultery, or for any of the causes aforesaid, done or committed on the part of the husband, the wife shall continue to hold all her property, real and personal, secured to her by law, free from any right in or control over her disposition of the same, either during her life or at her death; and, if there be no issue living, shall be restored to all other her lands, tenements and hereditaments, if any there be.

Sec. 9. In such case the wife shall also be allowed out of the real or personal estate of the husband, or out of both, such alimony as the court shall think reasonable, not exceeding the use of one moiety of his real estate, during the life of the wife, and the property of one-half of his personal estate, having regard to the personal property which came to the husband by the marriage, and his ability.

Sec. 10. If there be issue living at the time of the divorce, the court, with regard to ordering restoration to the wife of such of her lands, tenements or hereditaments, if any, as may not be secured to her by law, and in regard to the amount of alimony to be allowed to her out of the property of the husband, may do as they shall judge the circumstances of the case may require.

Sec. 11. Divorces from bed, board, and future cohabitation, until the parties be reconciled, may be granted for any of the causes for which by law a divorce from the bond of marriage may be decreed, and for such other causes as may seem to require the same.

Sec. 12. In case of such divorce, the court may assign to the petitioner a separate maintenance out of the estate or property of the husband or wife, as the case may be, in such manner, and of such amount, as they may think necessary or proper.

Sec. 13. Every petition shall be signed by the petitioner, if of sound mind and of legal age to consent to marriage, otherwise upon application to the court, and after notice to the party in whose name the petition shall be filed, the court may allow such petition to be signed by a guardian or next friend.

Sec. 14. All jurisdiction over divorce, alimony, separate maintenance, or the custody, education, and support of the children of persons divorced or petitioning for a divorce, is vested in the supreme court.

Sec. 15. Said court shall have no cognizance of or jurisdiction over any petition for the same, or either of the same, unless the petitioner shall, at the time of preferring such petition, be a domiciled inhabitant of this state, and have resided therein for the period of one year, next before the preferring of such petition.

SEC. 16. All such petitions shall be filed, heard, and tried in the county in which the petitioner shall reside.

SEC. 17. The said court may, by general rule or otherwise, prescribe the notice to be given, within or without the state, on such petitions, and may issue such process as may be necessary to carry into effect all powers conferred upon them in relation to the same.

SECTIONS 18, 19 and 20 contain provisions in relation to citations to adverse party residing without the state, or in parts unknown.

SEC. 21. Whenever any citation, issued under the provisions of this chapter, shall be served by a disinterested person, such person shall return the same, having made oath thereon of the place where, the time when, and the manner in which he shall have made service of the said citations.

SECTION 22 provides for giving and ensuring proper and sufficient notice to the adverse party.

SEC. 23. The said court is empowered to regulate the custody, and provide for the education, maintenance and support of the children of all persons by them divorced or petitioning for a divorce, and of all persons to whom a separate maintenance may be granted, or who may petition for the same; to make such allowance to the wife, out of the estate of her husband, for the purpose of enabling her to prosecute or defend against any such petition for divorce or separate maintenance, in case she has no property of her own available for such purpose, as they may think reasonable and proper; and to make all necessary orders and decrees concerning the same, and the same at any time to alter, amend and annul for sufficient cause, after notice to the parties interested therein.

SEC. 24. The said court may authorize a married woman to whom a divorce from the bond of marriage is decreed to change her name, with the same rights and liabilities as if her name had not been changed.

SEC. 25. After the filing and during the pendency of any petition under this chapter, the supreme court may, as in equity, make such interlocutory decrees, or grant such temporary injunctions as may be necessary, until a hearing can be had before the court.

## CHAPTER 198.

### OF DIVORCES.

SECTION 5. The clerks of the supreme court in the several counties shall make returns to the secretary of the state board of health, on or before the first day of

March, in each and every year, for the year ending on the thirty-first day of December preceding, of all the applications for divorce, showing the number, the number granted, and the causes which are given for the application, but without the names of the parties, in accordance with the blanks which shall be furnished them by the secretary of the state board of health.

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